

### **Treatment Unit Card 39**

**Alternatives:** 3, 4  
**Compartment:** 338  
**Stand:** 31  
**Acreage Treated:** 1

**Treatment:** Fuelbreak; Pile and burn  
**District:** Cadillac-Manistee  
**Location:** T20N, R16W, Sec 1; Mason County  
**ELTP:** 10

**Unit Description:** A jack pine stand with a year of origin of 1943 and a basal area (BA) of 140. It is located on LTA 1 in Management Area 4.2.

**Fuels Prescription:** Cut all decadent hardwoods and all conifers within 100' of private property. Break up all fuel concentrations that appear to pose a threat. These fuels would then be piled within the fuelbreak corridor. Piles can vary in size and should not be placed under overstory trees. All healthy hardwood overstory trees and hardwood regeneration would be retained. Burn the piles created during fuelbreak construction. This would take place when long range weather forecasts, usually late fall or winter, insure that fire does not spread from the piles to adjacent land. Retain or create an average of 9 suitable roost trees per acre within the treated area based upon the priorities in the Indiana Bat Management Guidelines (Forest Plan Standards and Guidelines, pages II 23-25). Retain native, mast producing shrubs where possible.

**Concern:** Protection of potential Indiana bats present during the breeding season and potential roosting habitat.

**Mitigation:** Prescribed burning would be prohibited from May 1-August 31 to eliminate the possibility of impacting individual bats in summer roosts. Prescribed burns would be conducted only when smoke would be transported away from the Tippy Management Zone (TMZ) or when the majority of the smoke would disperse before reaching the TMZ to protect bats during spring and fall swarming.

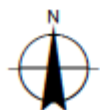
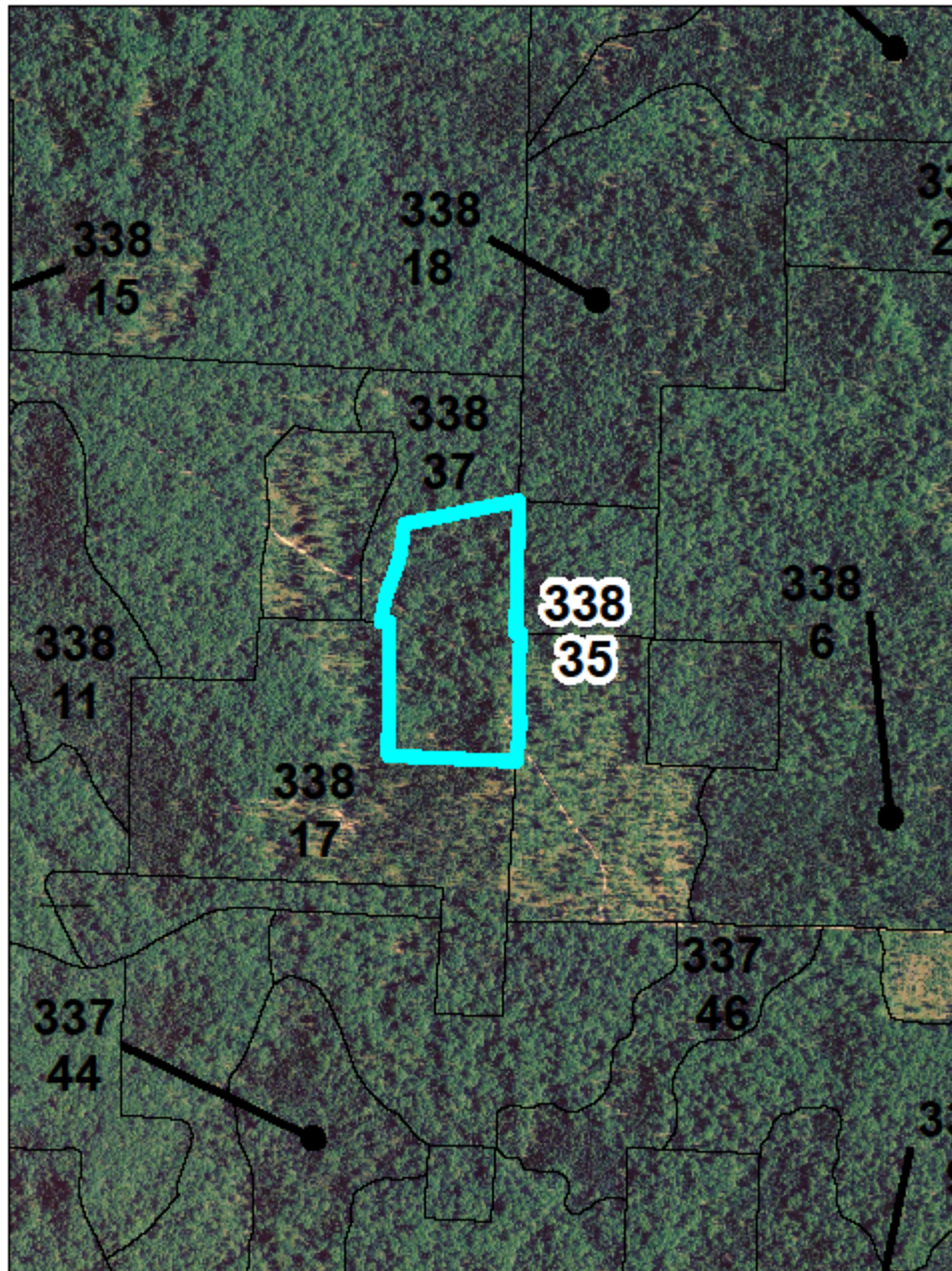
**Mitigation:** Standing snags  $\geq 6$  inches dbh would not be cut and/or removed unless considered a safety hazard.

**Mitigation:** Cutting would be prohibited from May 1-August 31 to eliminate the possibility of impacting individual bats in summer roosts.

**Concern:** Protection of bald eagle nesting areas.

**Mitigation:** Prescribed burning would be conducted only when smoke would be transported away from active nesting areas. See district wildlife biologist for current nest area locations and status.

## County Line Fuels Project Treatment Unit Card 40



0 200 400 800 1,200 1,600 Feet

## **Treatment Unit Card 40**

**Alternatives:** 2, 3  
**Compartment:** 338  
**Stand:** 35  
**Acreage Treated:** 19

**Treatment:** Barren restoration; Broadcast burn  
**District:** Cadillac-Manistee  
**Location:** T20N, R16W, Sec 2; Mason County  
**ELTP:** 10

**Unit Description:** A jack pine stand with a year of origin of 1947 and a basal area (BA) of 90. It is located on LTA 1 in Management Area 4.2.

**Resource Prescription:** Thin to 20-30 BA; retain all oak with a dbh >8"; reduce conifer activity fuel by 95%; allow tree length skidding and complete topwood utilization. Retain or create an average of 9 suitable roost trees per acre within the treated area based upon the priorities in the Indiana Bat Management Guidelines (Forest Plan Standards and Guidelines, pages II 23-25). Retain native, mast producing shrubs where possible.

**This stand would be moved from a land suitability classification (LSC) 500 to an LSC 600, removing the stand from the Forests' timber base.**

**Fuels Prescription:** A broadcast burn would be conducted. The prescribed burn would take place after a burn plan is written and approved for the units to be treated. Details of desired weather conditions, firefighting forces required, safety concerns, and other critical issues would be detailed in the burn plan. The objectives are to reduce fuel loading, reduce ladder fuels and to maintain a more open condition to reduce the possibility of catastrophic wildfire. The prescribed burn should reduce 1 hour fuels 75% (10-90%), 10 hour fuels 50% (5-80% range), 100 hour fuels 35% (10-70% range), and 1000 hour fuels 10% (0-40% range). Exposed mineral soil would occur on no more than 15% of the stand. Over all tree mortality in the residual stand should not exceed 15%. Manage smoke to minimize impacts to smoke sensitive areas.

A series of maintenance burns may be required to reduce additional fuel buildup; encourage continued growth and sustain plant species dependent on fire; and, discourage regeneration of tree species associated with extreme fire behavior. It is anticipated that up to two additional burns spaced every 3-5 years may be required to achieve these goals.

**Concern:** Protection of potential Indiana bats present during the breeding season and potential roosting habitat.

**Mitigation:** Prescribed burning would be prohibited from May 1-August 31 to eliminate the possibility of impacting individual bats in summer roosts. Prescribed burns would be conducted only when smoke would be transported away from the Tippy Management Zone (TMZ) or when the majority of the smoke would disperse before reaching the TMZ to protect bats during spring and fall swarming.

**Mitigation:** Standing snags  $\geq 6$  inches dbh would not be cut and/or removed unless considered a safety hazard.

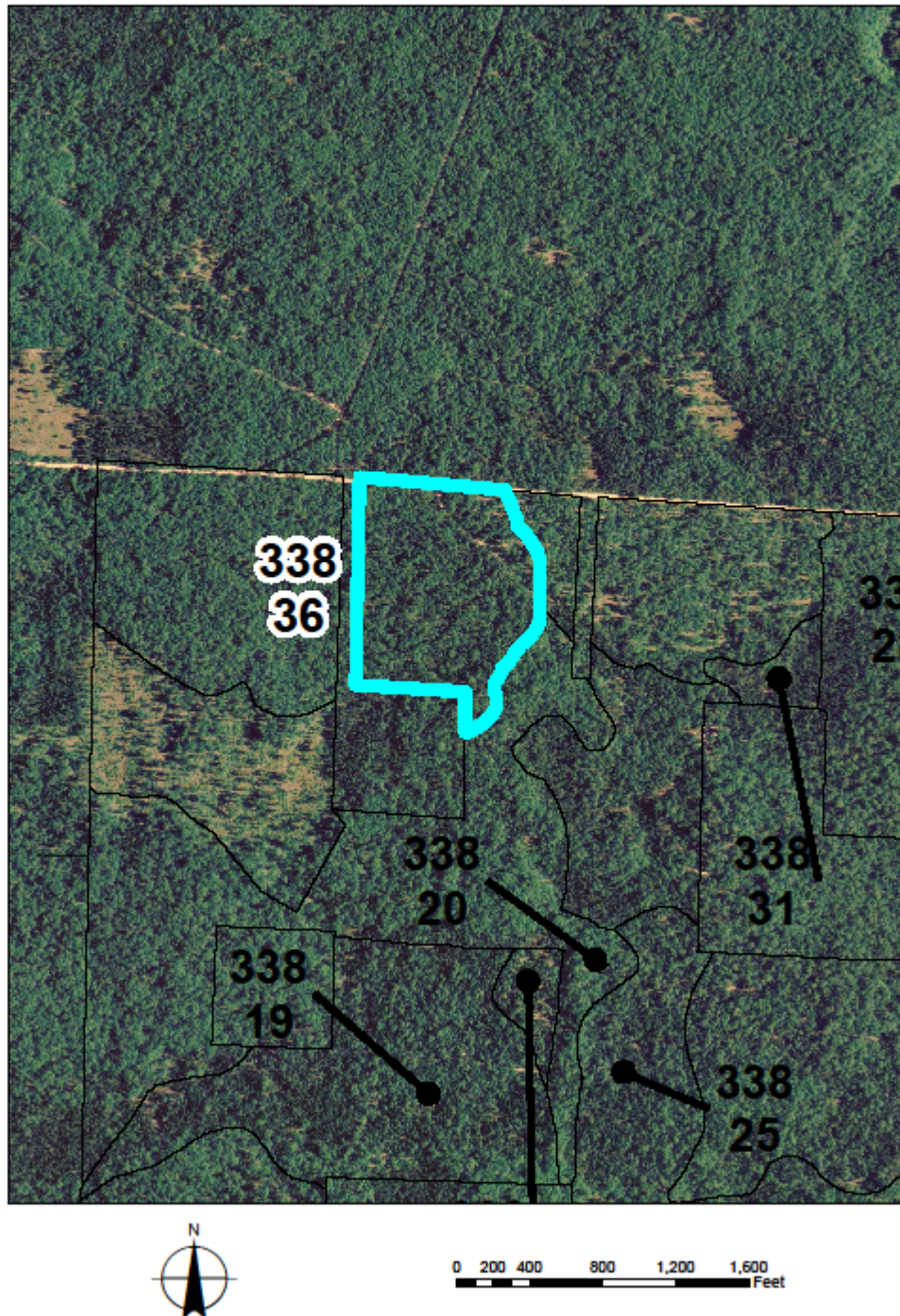
**Mitigation:** Cutting would be prohibited from May 1-August 31 to eliminate the possibility of impacting individual bats in summer roosts.

**Concern:** Protection of bald eagle nesting areas.

**Mitigation:** Prescribed burning would be conducted only when smoke would be transported away from active nesting areas. See district wildlife biologist for current nest area locations and status.



## County Line Fuels Project Treatment Unit Card 41



## **Treatment Unit Card 41**

**Alternatives:** 2

**Compartment:** 338

**Stand:** 36

**Acreage Treated:** 24

**Treatment:** Sanitation; Pile and burn

**District:** Cadillac-Manistee

**Location:** T20N, R16W, Sec 1; Mason County

**ELTP:** 10

**Unit Description:** A jack pine-oak stand with a year of origin of 1935 and a basal area (BA) of 60. It is located on LTA 1 in Management Area 4.2.

**Resource Prescription:** Remove decadent/high risk jack pine; retain a minimum of 40 BA of trees >5" dbh. Retain or create an average of 9 suitable roost trees per acre within the treated area based upon the priorities in the Indiana Bat Management Guidelines (Forest Plan Standards and Guidelines, pages II 23-25). Retain native, mast producing shrubs where possible.

**Fuels Prescription:** Machine pile material resulting from sanitation cut throughout the stand. Piles can vary in size and where possible should not be placed under overstory trees.

Burn the piles created during machine piling. This would take place when long range weather forecasts would insure that fire does not spread from the piles to adjacent land, usually late fall and winter.

**Concern:** Protection of potential Indiana bats present during the breeding season and potential roosting habitat.

**Mitigation:** Prescribed burning would be prohibited from May 1-August 31 to eliminate the possibility of impacting individual bats in summer roosts. Prescribed burns would be conducted only when smoke would be transported away from the Tippy Management Zone (TMZ) or when the majority of the smoke would disperse before reaching the TMZ to protect bats during spring and fall swarming.

**Mitigation:** Standing snags  $\geq 6$  inches dbh would not be cut and/or removed unless considered a safety hazard.

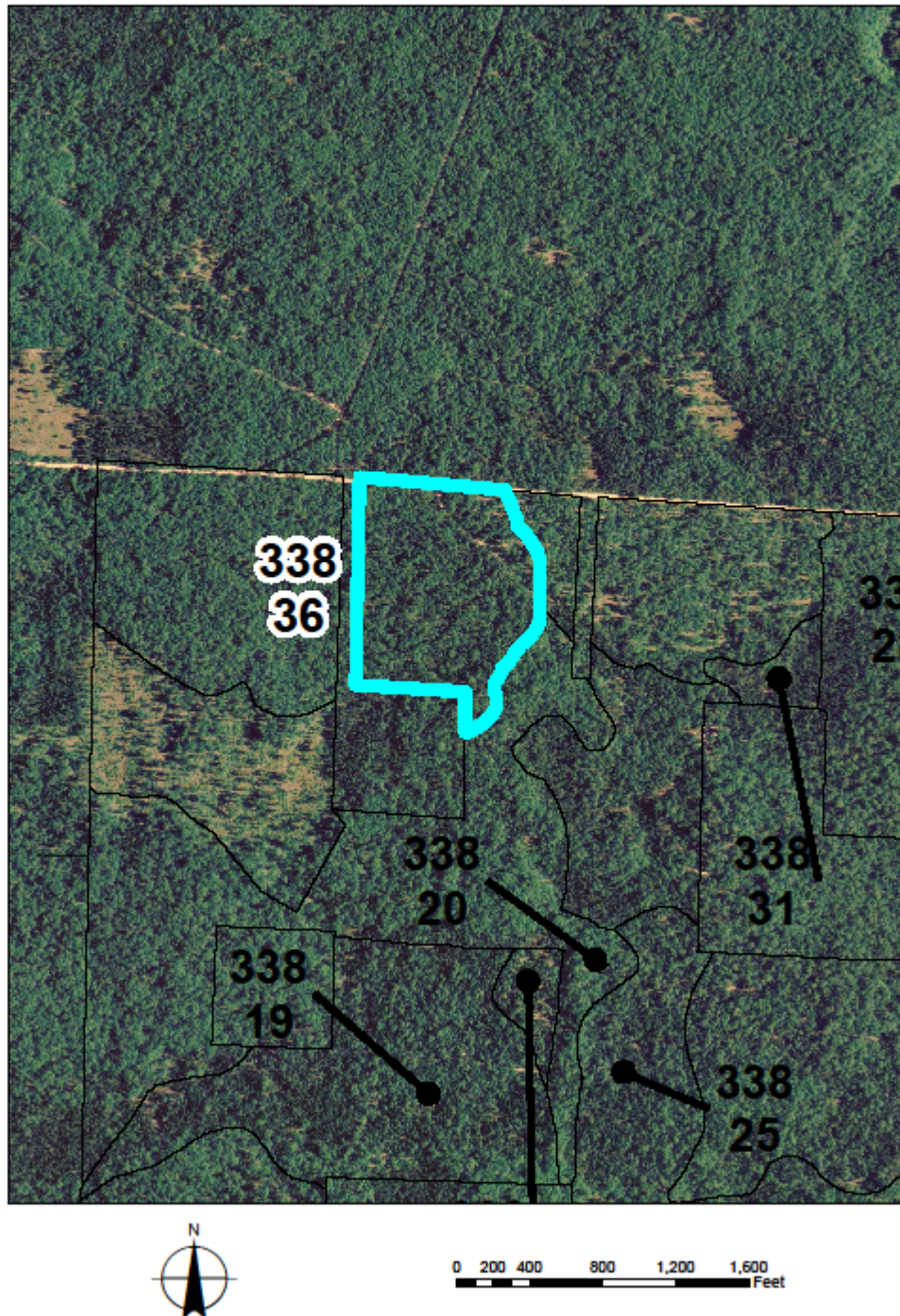
**Mitigation:** Cutting would be prohibited from May 1-August 31 to eliminate the possibility of impacting individual bats in summer roosts.

**Concern:** Protection of bald eagle nesting areas.

**Mitigation:** Prescribed burning would be conducted only when smoke would be transported away from active nesting areas. See district wildlife biologist for current nest area locations and status.



## County Line Fuels Project Treatment Unit Card 41



## **Treatment Unit Card 41**

**Alternatives:** 3

**Compartment:** 338

**Stand:** 36

**Acreage Treated:** 24

**Treatment:** Barren restoration; Broadcast burn

**District:** Cadillac-Manistee

**Location:** T20N, R16W, Sec 1; Mason County

**ELTP:** 10

**Unit Description:** A jack pine-oak stand with a year of origin of 1935 and a basal area (BA) of 60. It is located on LTA 1 in Management Area 4.2.

**Resource Prescription:** Thin to 20-30 BA; retain all oak with a dbh >8"; reduce conifer activity fuel by 95%; allow tree length skidding and complete topwood utilization. Retain or create an average of 9 suitable roost trees per acre within the treated area based upon the priorities in the Indiana Bat Management Guidelines (Forest Plan Standards and Guidelines, pages II 23-25). Retain native, mast producing shrubs where possible.

**This stand would be moved from a land suitability classification (LSC) 500 to an LSC 600, removing the stand from the Forests' timber base.**

**Fuels Prescription:** A broadcast burn would be conducted. The prescribed burn would take place after a burn plan is written and approved for the units to be treated. Details of desired weather conditions, firefighting forces required, safety concerns, and other critical issues would be detailed in the burn plan. The objectives are to reduce fuel loading, reduce ladder fuels and to maintain a more open condition to reduce the possibility of catastrophic wildfire. The prescribed burn should reduce 1 hour fuels 75% (10-90%), 10 hour fuels 50% (5-80% range), 100 hour fuels 35% (10-70% range), and 1000 hour fuels 10% (0-40% range). Exposed mineral soil would occur on no more than 15% of the stand. Over all tree mortality in the residual stand should not exceed 15%. Manage smoke to minimize impacts to smoke sensitive areas.

A series of maintenance burns may be required to reduce additional fuel buildup; encourage continued growth and sustain plant species dependent on fire; and, discourage regeneration of tree species associated with extreme fire behavior. It is anticipated that up to two additional burns spaced every 3-5 years may be required to achieve these goals.

**Concern:** Protection of potential Indiana bats present during the breeding season and potential roosting habitat.

**Mitigation:** Prescribed burning would be prohibited from May 1-August 31 to eliminate the possibility of impacting individual bats in summer roosts. Prescribed burns would be conducted only when smoke would be transported away from the Tippy Management Zone (TMZ) or when the majority of the smoke would disperse before reaching the TMZ to protect bats during spring and fall swarming.

**Mitigation:** Standing snags  $\geq 6$  inches dbh would not be cut and/or removed unless considered a safety hazard.

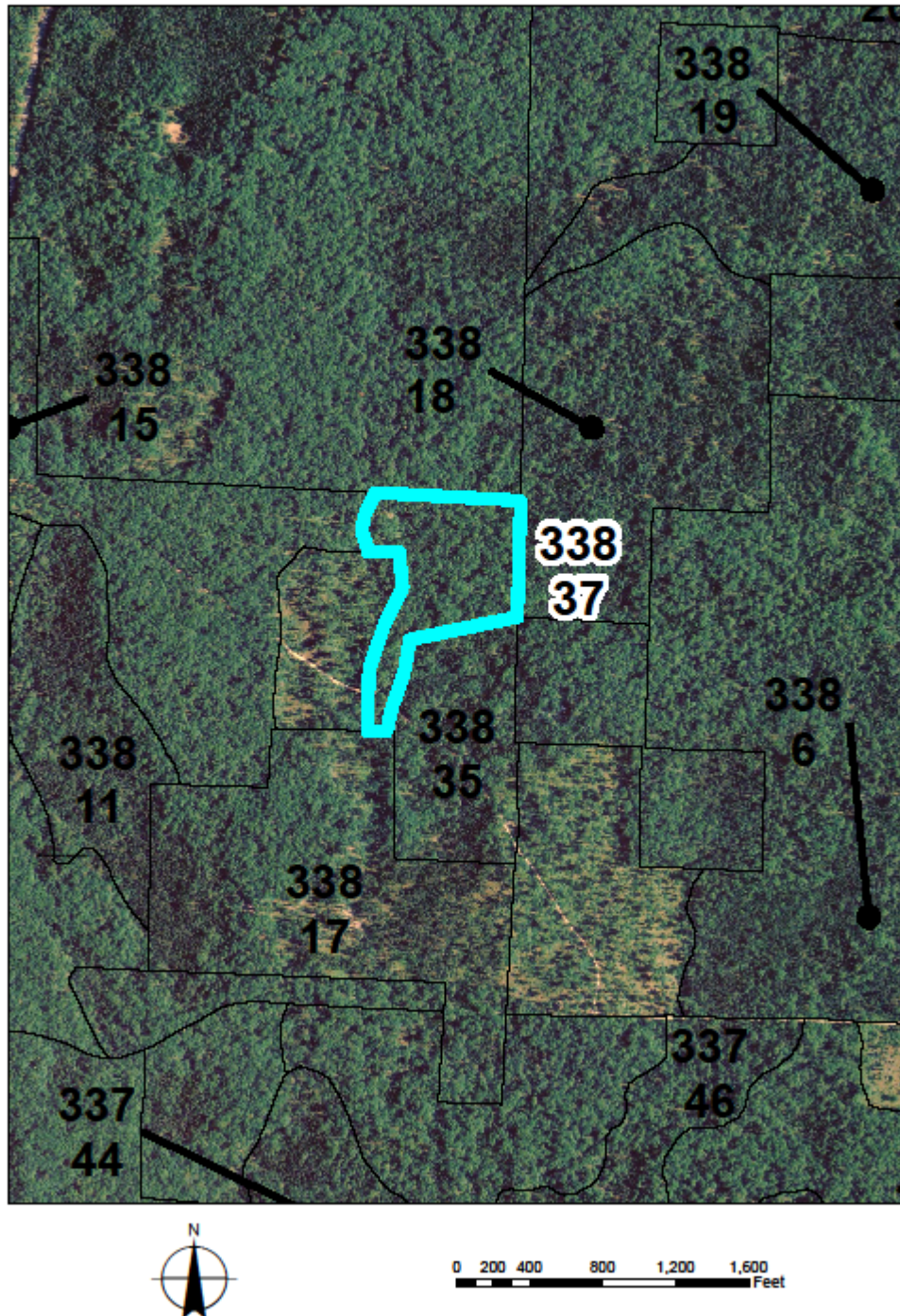
**Mitigation:** Cutting would be prohibited from May 1-August 31 to eliminate the possibility of impacting individual bats in summer roosts.

**Concern:** Protection of bald eagle nesting areas.

**Mitigation:** Prescribed burning would be conducted only when smoke would be transported away from active nesting areas. See district wildlife biologist for current nest area locations and status.



## County Line Fuels Project Treatment Unit Card 42





## **Treatment Unit Card 42**

**Alternatives:** 2, 3  
**Compartment:** 338  
**Stand:** 37  
**Acreage Treated:** 14

**Treatment:** Barren restoration; Broadcast burn  
**District:** Cadillac-Manistee  
**Location:** T20N, R16W, Sec 2; Mason County  
**ELTP:** 10

**Unit Description:** A jack pine-oak stand with a year of origin of 1900 and a basal area (BA) of 80. It is located on LTA 1 in Management Area 4.2.

**Resource Prescription:** Thin to 20-30 BA; retain all oak with a dbh >8"; reduce conifer activity fuel by 95%; allow tree length skidding and complete topwood utilization. Retain or create an average of 9 suitable roost trees per acre within the treated area based upon the priorities in the Indiana Bat Management Guidelines (Forest Plan Standards and Guidelines, pages II 23-25). Retain native, mast producing shrubs where possible.

**This stand would be moved from a land suitability classification (LSC) 500 to an LSC 600, removing the stand from the Forests' timber base.**

**Fuels Prescription:** A broadcast burn would be conducted. The prescribed burn would take place after a burn plan is written and approved for the units to be treated. Details of desired weather conditions, firefighting forces required, safety concerns, and other critical issues would be detailed in the burn plan. The objectives are to reduce fuel loading, reduce ladder fuels and to maintain a more open condition to reduce the possibility of catastrophic wildfire. The prescribed burn should reduce 1 hour fuels 75% (10-90%), 10 hour fuels 50% (5-80% range), 100 hour fuels 35% (10-70% range), and 1000 hour fuels 10% (0-40% range). Exposed mineral soil would occur on no more than 15% of the stand. Over all tree mortality in the residual stand should not exceed 15%. Manage smoke to minimize impacts to smoke sensitive areas.

A series of maintenance burns may be required to reduce additional fuel buildup; encourage continued growth and sustain plant species dependent on fire; and, discourage regeneration of tree species associated with extreme fire behavior. It is anticipated that up to two additional burns spaced every 3-5 years may be required to achieve these goals.

**Concern:** Protection of potential Indiana bats present during the breeding season and potential roosting habitat.

**Mitigation:** Prescribed burning would be prohibited from May 1-August 31 to eliminate the possibility of impacting individual bats in summer roosts. Prescribed burns would be conducted only when smoke would be transported away from the Tippy Management Zone (TMZ) or when the majority of the smoke would disperse before reaching the TMZ to protect bats during spring and fall swarming.

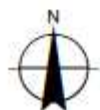
**Mitigation:** Standing snags  $\geq 6$  inches dbh would not be cut and/or removed unless considered a safety hazard.

**Mitigation:** Cutting would be prohibited from May 1-August 31 to eliminate the possibility of impacting individual bats in summer roosts.

**Concern:** Protection of bald eagle nesting areas.

**Mitigation:** Prescribed burning would be conducted only when smoke would be transported away from active nesting areas. See district wildlife biologist for current nest area locations and status.

## County Line Fuels Project Treatment Unit Card 43



0 165 330 660 990 1,320 Feet

### **Treatment Unit Card 43**

**Alternatives:** 2  
**Compartment:** 339  
**Stand:** 1  
**Acreage Treated:** 5

**Treatment:** Sanitation; Pile and burn  
**District:** Cadillac-Manistee  
**Location:** T20N, R16W, Sec 16; Mason County  
**ELTP:** 20

**Unit Description:** A jack pine stand with a year of origin of 1940 and a basal area (BA) of 90. It is located on LTA 7 in Management Area 4.4.

**Resource Prescription:** Remove decadent/high risk jack pine and all black locust; retain a minimum of 40 BA of trees >5" dbh. Retain or create an average of 9 suitable roost trees per acre within the treated area based upon the priorities in the Indiana Bat Management Guidelines (Forest Plan Standards and Guidelines, pages II 23-25). Retain native, mast producing shrubs where possible.

**Fuels Prescription:** Machine pile material resulting from sanitation cut throughout the stand. Piles can vary in size and where possible should not be placed under overstory trees.

Burn the piles created during machine piling. This would take place when long range weather forecasts would insure that fire does not spread from the piles to adjacent land, usually late fall and winter.

**NNIS Prescription:** Inject glyphosate capsules into stems of autumn olive (1 ac), honeysuckle (0.1 ac), and multiflora rose (0.1 ac) with EZ-Ject Lance or stump treatment with 10-20% glyphosate. The alternative for the first two species is the mechanical removal twice a year for 3-5 years (1.1 ac); for multiflora rose, mowing or cutting should be repeated 3-6 times during the growing season for 2-4 years.

**Concern:** Protection of potential Indiana bats present during the breeding season and potential roosting habitat.

**Mitigation:** Prescribed burning would be prohibited from May 1-August 31 to eliminate the possibility of impacting individual bats in summer roosts. Prescribed burns would be conducted only when smoke would be transported away from the Tippy Management Zone (TMZ) or when the majority of the smoke would disperse before reaching the TMZ to protect bats during spring and fall swarming.

**Mitigation:** Standing snags  $\geq 6$  inches dbh would not be cut and/or removed unless considered a safety hazard.

**Mitigation:** Cutting would be prohibited from May 1-August 31 to eliminate the possibility of impacting individual bats in summer roosts.

**Concern:** Protection of bald eagle nesting areas.

**Mitigation:** Prescribed burning would be conducted only when smoke would be transported away from active nesting areas. See district wildlife biologist for current nest area locations and status.



## County Line Fuels Project Treatment Unit Card 44



**Treatment Unit Card 44****Alternatives:** 2**Compartment:** 339**Stand:** 2**Acreage Treated:** 11**Treatment:** Thin**District:** Cadillac-Manistee**Location:** T20N, R16W, Sec 16; Mason County**ELTP:** 20

**Unit Description:** A red pine stand with a year of origin of 1937 and a basal area (BA) of 140. It is located on LTA 4 in Management Area 4.4.

**Resource Prescription:** Row thin and thin from below (without spacing consideration) to reduce density by approximately 30%; target 90-110 BA for all species. Remove selected jack pine and black locust. Retain or create an average of 9 suitable roost trees per acre within the treated area based upon the priorities in the Indiana Bat Management Guidelines (Forest Plan Standards and Guidelines, pages II 23-25). Retain native, mast producing shrubs where possible. Prune and release one apple tree.

**NNIS Prescription:** Inject glyphosate capsules into stems of autumn olive (0.1 ac) and black locust (0.1 ac) with EZ-Ject Lance or stump treatment with 10-20% glyphosate. The alternative is the mechanical removal twice a year for 3-5 years. Spot spray bull thistle (0.1 ac) with 2.5% glyphosate. The alternative is to hand pull.

**Concern:** Protection of potential Indiana bats present during the breeding season.

**Mitigation:** Standing snags  $\geq 6$  inches dbh would not be cut or removed unless considered a safety hazard.

**Concern:** Protection of apple tree during harvest operations.

**Mitigation:** Reserve apple tree.



## County Line Fuels Project Treatment Unit Card 44





## **Treatment Unit Card 44**

**Alternatives:** 3, 4  
**Compartment:** 339  
**Stand:** 2  
**Acreage Treated:** 5

**Treatment:** Clearcut aspen inclusion  
**District:** Cadillac-Manistee  
**Location:** T20N, R16W, Sec 16; Mason County  
**ELTP:** 20

**Unit Description:** A red pine stand with a year of origin of 1937 and a basal area (BA) of 140. It is located on LTA 4 in Management Area 4.4.

**Resource Prescription:** Retain 10-20 trees/acre >9" dbh. Cut all black locust. Site prep for natural regeneration all trees <5" dbh. Retain or create an average of 9 suitable roost trees per acre within the treated area based upon the priorities in the Indiana Bat Management Guidelines (Forest Plan Standards and Guidelines, pages II 23-25). Retain native, mast producing shrubs where possible. Prune and release one apple tree.

**NNIS Prescription:** Inject glyphosate capsules into stems of autumn olive (0.1 ac) and black locust (0.1 ac) with EZ-Ject Lance or stump treatment with 10-20% glyphosate. The alternative is the mechanical removal twice a year for 3-5 years. Spot spray bull thistle (0.1 ac) with 2.5% glyphosate. The alternative is to hand pull.

**Concern:** Protection of potential Indiana bats present during the breeding season and potential roosting habitat.

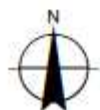
**Mitigation:** Standing snags  $\geq 6$  inches dbh would not be cut and/or removed unless considered a safety hazard.

**Mitigation:** Cutting would be prohibited from May 1-August 31 to eliminate the possibility of impacting individual bats in summer roosts.

**Concern:** Protection of apple tree during harvest operations.

**Mitigation:** Reserve apple tree.

## County Line Fuels Project Treatment Unit Card 45



0 165 330 660 990 1,320 Feet

**Treatment Unit Card 45**

**Alternatives:** 2, 3, 4  
**Compartment:** 339  
**Stand:** 9  
**Acreage Treated:** 2

**Treatment:** Opening maintenance  
**District:** Cadillac-Manistee  
**Location:** T20N, R16W, Sec 16; Mason County  
**ELTP:** 20

**Unit Description:** An opening located on LTA 7 in Management Area 4.4.

**NNIS Prescription:** Inject glyphosate capsules into stems of autumn olive (0.1 ac) and black locust (0.1 ac) with EZ-Ject Lance or stump treatment with 10-20% glyphosate. The alternative is the mechanical removal twice a year for 3-5 years.

**Concern:** Cultural resources found in stand.

**Mitigation:** Avoid cultural resource, which will be marked with a 20-30 meter flagged boundary prior to project initiation. If any unknown cultural resources are discovered during project activities for the proposed project or there is a change in location of the APE, then a professional Cultural Resources Specialist must be contacted. Project work will not be allowed to resume until the cultural resources have been documented and the sites are preserved from any potential impacts.



## County Line Fuels Project Treatment Unit Card 46



0 260 520 1,040 1,560 2,080 Feet

## **Treatment Unit Card 46**

**Alternatives:** 2  
**Compartment:** 339  
**Stand:** 10  
**Acreage Treated:** 3

**Treatment:** Fuelbreak; Pile and burn  
**District:** Cadillac-Manistee  
**Location:** T20N, R16W, Sec 16; Mason County  
**ELTP:** 20

**Unit Description:** A jack pine stand with a year of origin of 1937 and a basal area (BA) of 110. It is located on LTA 7 in Management Area 4.4.

**Fuels Prescription:** Cut all decadent hardwoods and all conifers within 100' of road. Break up all fuel concentrations that appear to pose a threat. These fuels would then be piled within the fuelbreak corridor. Piles can vary in size and should not be placed under overstory trees. All healthy hardwood overstory trees and hardwood regeneration would be retained. Burn the piles created during fuelbreak construction. This would take place when long range weather forecasts, usually late fall or winter, insure that fire does not spread from the piles to adjacent land. Retain or create an average of 9 suitable roost trees per acre within the treated area based upon the priorities in the Indiana Bat Management Guidelines (Forest Plan Standards and Guidelines, pages II 23-25). Retain native, mast producing shrubs where possible. Prune and release one apple tree.

**NNIS Prescription:** Cut all scotch pine (0.5 ac). Inject glyphosate capsules into stems of autumn olive (0.1 ac), black locust (0.1 acres), and multiflora rose (0.1 ac) with EZ-Ject Lance or stump treatment with 10-20% glyphosate. The alternative for autumn olive and black locust is mechanical removal twice a year for 3-5 years; for multiflora rose, mowing or cutting should be repeated 3-6 times during the growing season for 2-4 years.

**Concern:** Protection of potential Indiana bats present during the breeding season and potential roosting habitat.

**Mitigation:** Prescribed burning would be prohibited from May 1-August 31 to eliminate the possibility of impacting individual bats in summer roosts. Prescribed burns would be conducted only when smoke would be transported away from the Tippy Management Zone (TMZ) or when the majority of the smoke would disperse before reaching the TMZ to protect bats during spring and fall swarming.

**Mitigation:** Standing snags  $\geq 6$  inches dbh would not be cut and/or removed unless considered a safety hazard.

**Mitigation:** Cutting would be prohibited from May 1-August 31 to eliminate the possibility of impacting individual bats in summer roosts.

**Concern:** Protection of bald eagle nesting areas.

**Mitigation:** Prescribed burning would be conducted only when smoke would be transported away from active nesting areas. See district wildlife biologist for current nest area locations and status.

**Concern:** Protection of apple tree during vegetation treatment operations.

**Mitigation:** Reserve apple tree.

**Concern:** USA ownership does not extend to Trembl Rd.

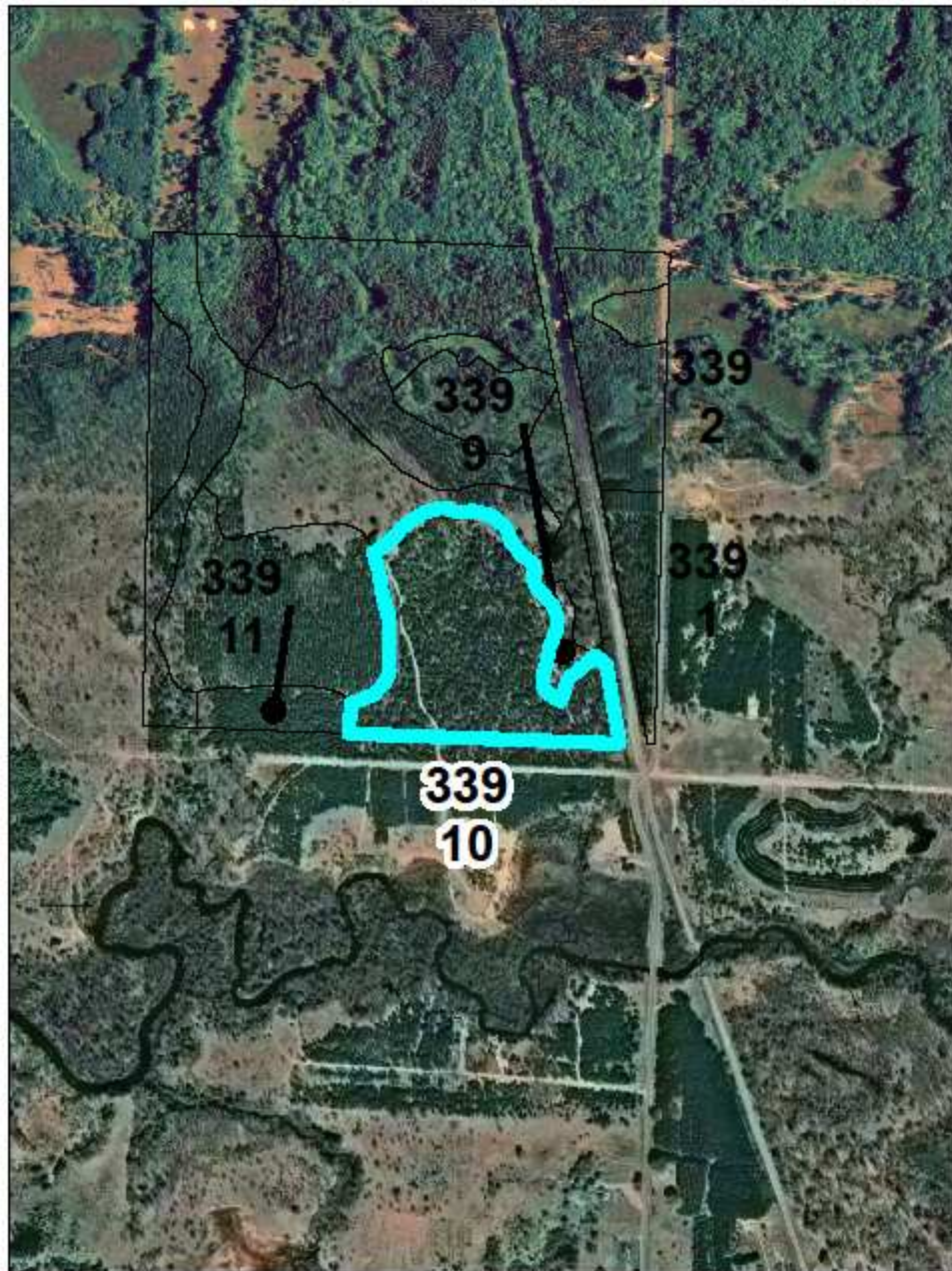
**Mitigation:** Establish land line prior to treatment.

**Concern:** Cultural resources found in stand.

**Mitigation:** Avoid cultural resource, which will be marked with a 20-30 meter flagged boundary prior to project initiation. If any unknown cultural resources are discovered during project activities for the proposed project or there is a change in location of the APE, then a professional Cultural Resources Specialist must be contacted. Project work will not be allowed to resume until the cultural resources have been documented and the sites are preserved from any potential impacts.



## County Line Fuels Project Treatment Unit Card 46





## **Treatment Unit Card 46**

**Alternatives:** 3

**Compartment:** 339

**Stand:** 10

**Acreage Treated:** 25

**Treatment:** Shelterwood; Site prep

**District:** Cadillac-Manistee

**Location:** T20N, R16W, Sec 16; Mason County

**ELTP:** 20

**Unit Description:** A jack pine stand with a year of origin of 1937 and a basal area (BA) of 110. It is located on LTA 7 in Management Area 4.4.

**Resource Prescription:** Shelterwood removal cut harvest; remove decadent/high risk jack pine and oak <8" dbh. Site prep for natural regeneration by hand tool felling of all jack pine and oak <5" dbh. Retain a minimum of 30 BA of oak and pine >8" dbh. Retain or create an average of 9 suitable roost trees per acre within the treated area based upon the priorities in the Indiana Bat Management Guidelines (Forest Plan Standards and Guidelines, pages II 23-25). Retain native, mast producing shrubs where possible. Prune and release one apple tree.

**NNIS Prescription:** Cut all scotch pine (0.5 ac). Inject glyphosate capsules into stems of autumn olive (0.1 ac), black locust (0.1 ac), and multiflora rose (0.1 ac) with EZ-Ject Lance or stump treatment with 10-20% glyphosate. The alternative for autumn olive and black locust is mechanical removal twice a year for 3-5 years; for multiflora rose, mowing or cutting should be repeated 3-6 times during the growing season for 2-4 years.

**Concern:** Protection of potential Indiana bats present during the breeding season and potential roosting habitat.

**Mitigation:** Standing snags ≥6 inches dbh would not be cut and/or removed unless considered a safety hazard.

**Mitigation:** Cutting would be prohibited from May 1-August 31 to eliminate the possibility of impacting individual bats in summer roosts.

**Concern:** Protection of apple tree during harvest operations.

**Mitigation:** Reserve apple tree.

**Concern:** USA ownership does not extend to Trembl Rd.

**Mitigation:** Establish land line prior to treatment.

**Mitigation:** Obtain easement/license across CSX RR or from private landowners.

**Concern:** Cultural resources found in stand.

**Mitigation:** Avoid cultural resource, which will be marked with a 20-30 meter flagged boundary prior to project initiation. If any unknown cultural resources are discovered during project activities for the proposed project or there is a change in location of the APE, then a professional Cultural Resources Specialist must be contacted. Project work will not be allowed to resume until the cultural resources have been documented and the sites are preserved from any potential impacts.

## County Line Fuels Project Treatment Unit Card 47



## **Treatment Unit Card 47**

**Alternatives:** 2  
**Compartment:** 339  
**Stand:** 11  
**Acreage Treated:** 4

**Treatment:** Clearcut; Site prep  
**District:** Cadillac-Manistee  
**Location:** T20N, R16W, Sec 16; Mason County  
**ELTP:** 20

**Unit Description:** A scotch pine stand with a year of origin of 1937 and a basal area (BA) of 90. It is located on LTA 7 in Management Area 4.4.

**Resource Prescription:** Retain 10-20 non-scotch pine trees/acre >9" dbh; cut all scotch pine. Site prep for natural regeneration all jack pine and oak <5" dbh. Retain or create an average of 9 suitable roost trees per acre within the treated area based upon the priorities in the Indiana Bat Management Guidelines (Forest Plan Standards and Guidelines, pages II 23-25). Retain native, mast producing shrubs where possible.

**NNIS Prescription:** Inject glyphosate capsules into stems of honeysuckle (0.1 ac) and black locust (0.1 ac) with EZ-Ject Lance or stump treatment with 10-20% glyphosate. The alternative is the mechanical removal twice a year for 3-5 years.

**Concern:** Protection of potential Indiana bats present during the breeding season and potential roosting habitat.

**Mitigation:** Standing snags  $\geq 6$  inches dbh would not be cut and/or removed unless considered a safety hazard.

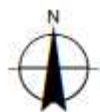
**Mitigation:** Cutting would be prohibited from May 1-August 31 to eliminate the possibility of impacting individual bats in summer roosts.

**Concern:** USA ownership does not extend to Trembl Rd.

**Mitigation:** Establish land line prior to treatment.



## County Line Fuels Project Treatment Unit Card 47



0 175 350 700 1,050 1,400 Feet

**Treatment Unit Card 47**

**Alternatives:** 3  
**Compartment:** 339  
**Stand:** 11  
**Acreage Treated:** 4

**Treatment:** Shelterwood; Site prep  
**District:** Cadillac-Manistee  
**Location:** T20N, R16W, Sec 16; Mason County  
**ELTP:** 20

**Unit Description:** A scotch pine stand with a year of origin of 1937 and a basal area (BA) of 90. It is located on LTA 7 in Management Area 4.4.

**Resource Prescription:** Shelterwood removal cut harvest; remove decadent/high risk jack pine and oak <8" dbh. Site prep for natural regeneration by hand tool felling of all jack pine and oak <5" dbh. Retain a minimum of 30 BA of oak and pine >8" dbh. Retain or create an average of 9 suitable roost trees per acre within the treated area based upon the priorities in the Indiana Bat Management Guidelines (Forest Plan Standards and Guidelines, pages II 23-25). Retain native, mast producing shrubs where possible.

**NNIS Prescription:** Inject glyphosate capsules into stems of honeysuckle (0.1 ac) and black locust (0.1 ac) with EZ-Ject Lance or stump treatment with 10-20% glyphosate. The alternative is the mechanical removal twice a year for 3-5 years.

**Concern:** Protection of potential Indiana bats present during the breeding season and potential roosting habitat.

**Mitigation:** Standing snags  $\geq 6$  inches dbh would not be cut and/or removed unless considered a safety hazard.

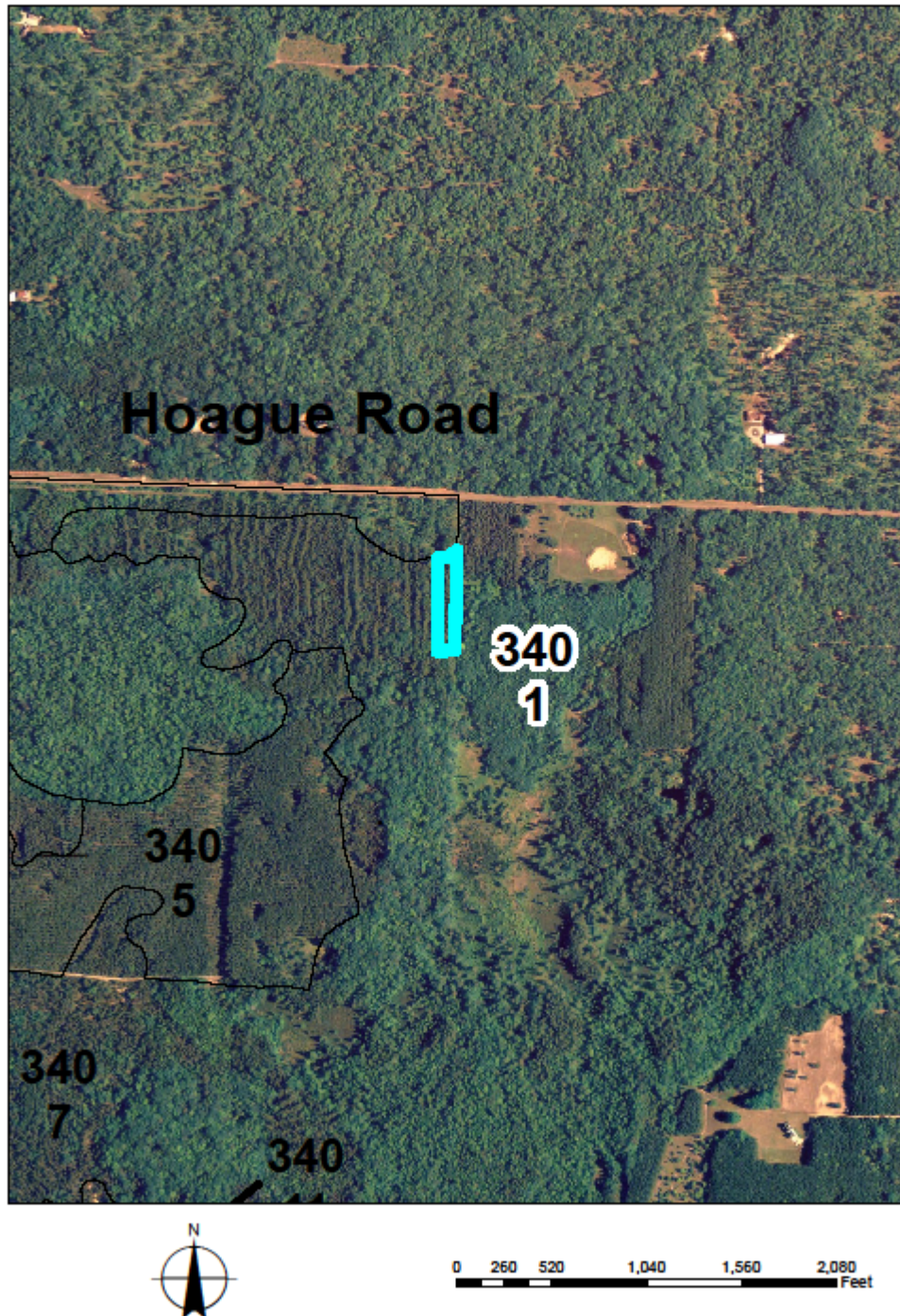
**Mitigation:** Cutting would be prohibited from May 1-August 31 to eliminate the possibility of impacting individual bats in summer roosts.

**Concern:** USA ownership does not extend to Trembl Rd.

**Mitigation:** Establish land line prior to treatment.



## County Line Fuels Project Treatment Unit Card 48





## **Treatment Unit Card 48**

**Alternatives:** 2, 3, 4

**Compartment:** 340

**Stand:** 1

**Acreage Treated:** 1

**Treatment:** Fuelbreak; Pile and burn

**District:** Cadillac-Manistee

**Location:** T20N, R16W, Sec 1; Mason County

**ELTP:** 24

**Unit Description:** A red pine stand with a year of origin of 1940 and a basal area (BA) of 90. It is located on LTA 7 in Management Area 4.4.

**Fuels Prescription:** Cut all decadent hardwoods and all conifers within 100' of private property. Break up all fuel concentrations that appear to pose a threat. These fuels would then be piled within the fuelbreak corridor. Piles can vary in size and should not be placed under overstory trees. All healthy hardwood overstory trees and hardwood regeneration would be retained. Burn the piles created during fuelbreak construction. This would take place when long range weather forecasts, usually late fall or winter, insure that fire does not spread from the piles to adjacent land. Retain or create an average of 9 suitable roost trees per acre within the treated area based upon the priorities in the Indiana Bat Management Guidelines (Forest Plan Standards and Guidelines, pages II 23-25). Retain native, mast producing shrubs where possible.

**Concern:** Protection of potential Indiana bats present during the breeding season and potential roosting habitat.

**Mitigation:** Prescribed burning would be prohibited from May 1-August 31 to eliminate the possibility of impacting individual bats in summer roosts. Prescribed burns would be conducted only when smoke would be transported away from the Tippy Management Zone (TMZ) or when the majority of the smoke would disperse before reaching the TMZ to protect bats during spring and fall swarming.

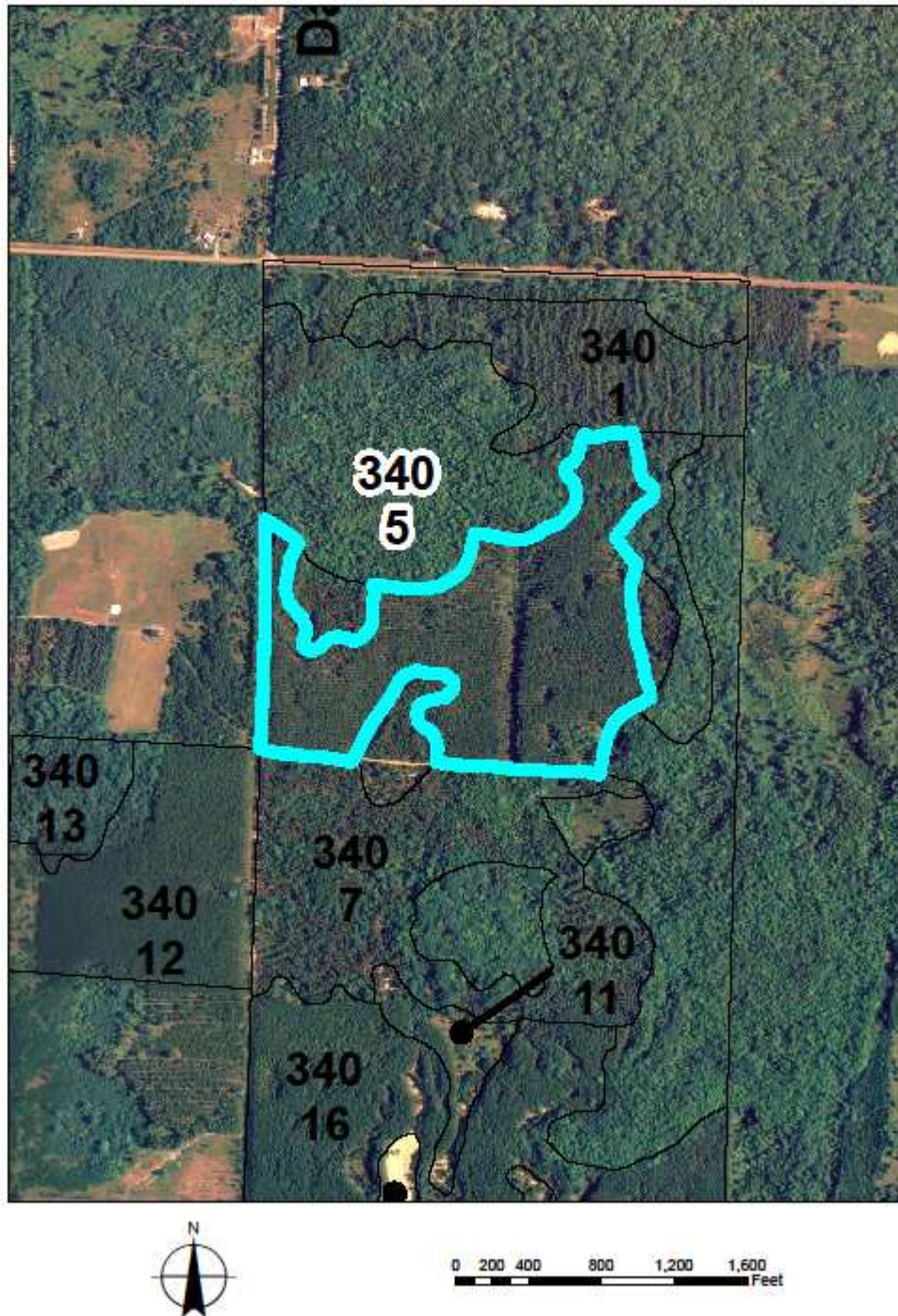
**Mitigation:** Standing snags  $\geq 6$  inches dbh would not be cut and/or removed unless considered a safety hazard.

**Mitigation:** Cutting would be prohibited from May 1-August 31 to eliminate the possibility of impacting individual bats in summer roosts.

**Concern:** Protection of bald eagle nesting areas.

**Mitigation:** Prescribed burning would be conducted only when smoke would be transported away from active nesting areas. See district wildlife biologist for current nest area locations and status.

## County Line Fuels Project Treatment Unit Card 49



**Treatment Unit Card 49**

**Alternatives:** 2, 3, 4  
**Compartment:** 340  
**Stand:** 5  
**Acreage Treated:** 50

**Treatment:** Thin  
**District:** Cadillac-Manistee  
**Location:** T20N, R16W, Sec 8; Mason County  
**ELTP:** 62

**Unit Description:** A red pine stand with a year of origin of 1950 and a basal area (BA) of 180. It is located on LTA 7 in Management Area 4.4.

**Resource Prescription:** Row thin and thin from below (without spacing consideration) to reduce density by approximately 30%; target 110-130 BA for all species. Remove selected jack pine and scotch pine. Retain or create an average of 9 suitable roost trees per acre within the treated area based upon the priorities in the Indiana Bat Management Guidelines (Forest Plan Standards and Guidelines, pages II 23-25). Retain native, mast producing shrubs where possible.

**NNIS Prescription:** Inject glyphosate capsules into stems of autumn olive (0.1 ac) with EZ-Ject Lance or stump treatment with 10-20% glyphosate. The alternative is the mechanical removal twice a year for 3-5 years. Spot spray bull thistle with 2.5% glyphosate. The alternative is to hand pull.

**Concern:** Protection of potential Indiana bats present during the breeding season.

**Mitigation:** Standing snags  $\geq 6$  inches dbh would not be cut or removed unless considered a safety hazard.

**Concern:** Seasonal high water table

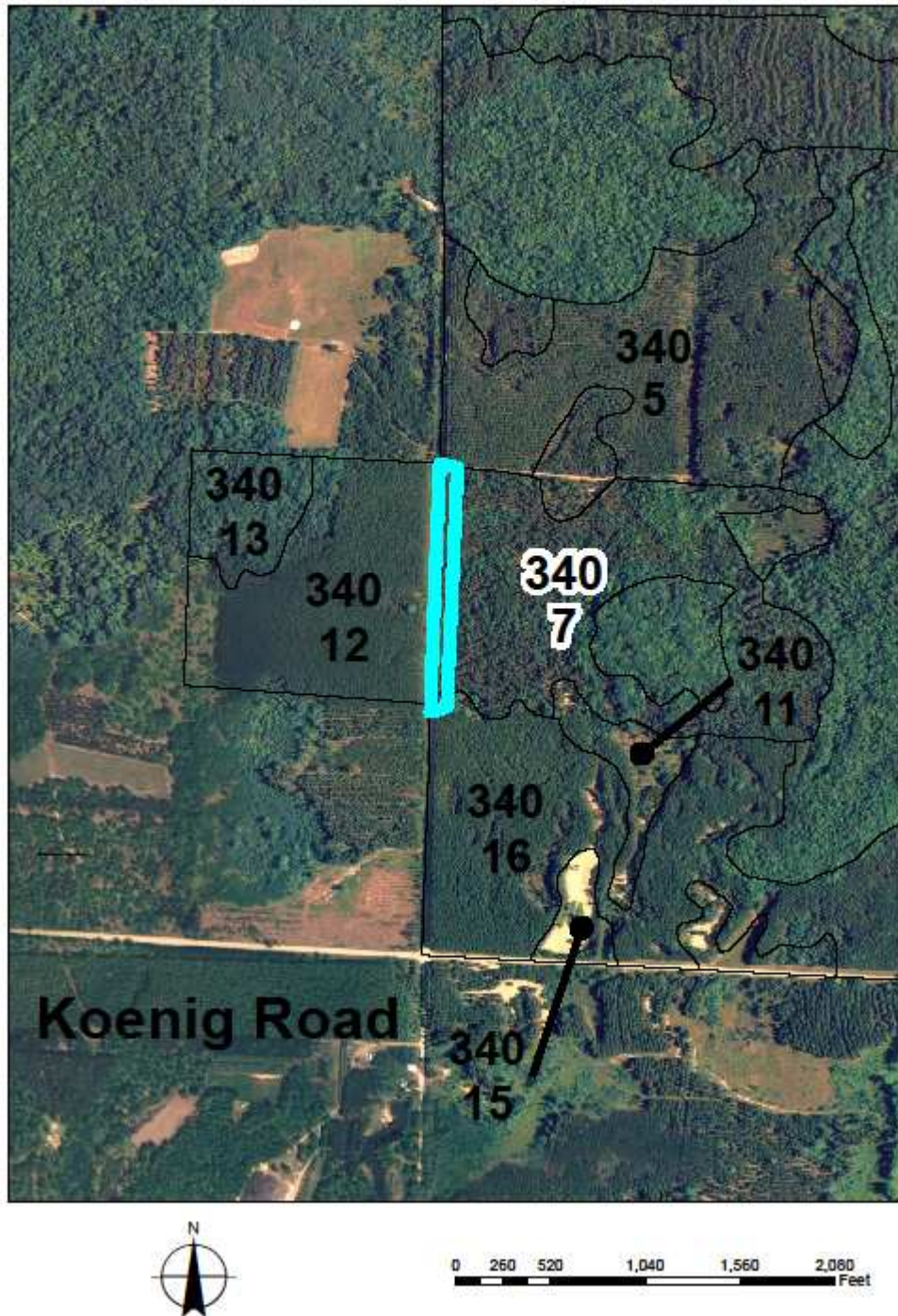
**Mitigation:** Harvest between January 1-February 28.

**Concern:** Cultural resources found in stand.

**Mitigation:** Avoid cultural resource, which will be marked with a 20-30 meter flagged boundary prior to project initiation. If any unknown cultural resources are discovered during project activities for the proposed project or there is a change in location of the APE, then a professional Cultural Resources Specialist must be contacted. Project work will not be allowed to resume until the cultural resources have been documented and the sites are preserved from any potential impacts.



## County Line Fuels Project Treatment Unit Card 50



## **Treatment Unit Card 50**

**Alternatives:** 2, 3  
**Compartment:** 340  
**Stand:** 7  
**Acreage Treated:** 3

**Treatment:** Fuelbreak; Pile and burn  
**District:** Cadillac-Manistee  
**Location:** T20N, R16W, Sec 8; Mason County  
**ELTP:** 24

**Unit Description:** A jack pine stand with a year of origin of 1940 and a basal area (BA) of 90. It is located on LTA 5 in Management Area 4.4.

**Fuels Prescription:** Cut all decadent hardwoods and all conifers within 100' of Darr Road. Break up all fuel concentrations that appear to pose a threat. These fuels would then be piled within the fuelbreak corridor. Piles can vary in size and should not be placed under overstory trees. All healthy hardwood overstory trees and hardwood regeneration would be retained. Burn the piles created during fuelbreak construction. This would take place when long range weather forecasts, usually late fall or winter, insure that fire does not spread from the piles to adjacent land. Retain or create an average of 9 suitable roost trees per acre within the treated area based upon the priorities in the Indiana Bat Management Guidelines (Forest Plan Standards and Guidelines, pages II 23-25). Retain native, mast producing shrubs where possible.

**NNIS Prescription:** Inject glyphosate capsules into stems of black locust (0.1 ac) with EZ-Ject Lance or stump treatment with 10-20% glyphosate. The alternative is the mechanical removal twice a year for 3-5 years.

**Concern:** Protection of potential Indiana bats present during the breeding season and potential roosting habitat.

**Mitigation:** Prescribed burning would be prohibited from May 1-August 31 to eliminate the possibility of impacting individual bats in summer roosts. Prescribed burns would be conducted only when smoke would be transported away from the Tippy Management Zone (TMZ) or when the majority of the smoke would disperse before reaching the TMZ to protect bats during spring and fall swarming.

**Mitigation:** Standing snags  $\geq 6$  inches dbh would not be cut and/or removed unless considered a safety hazard.

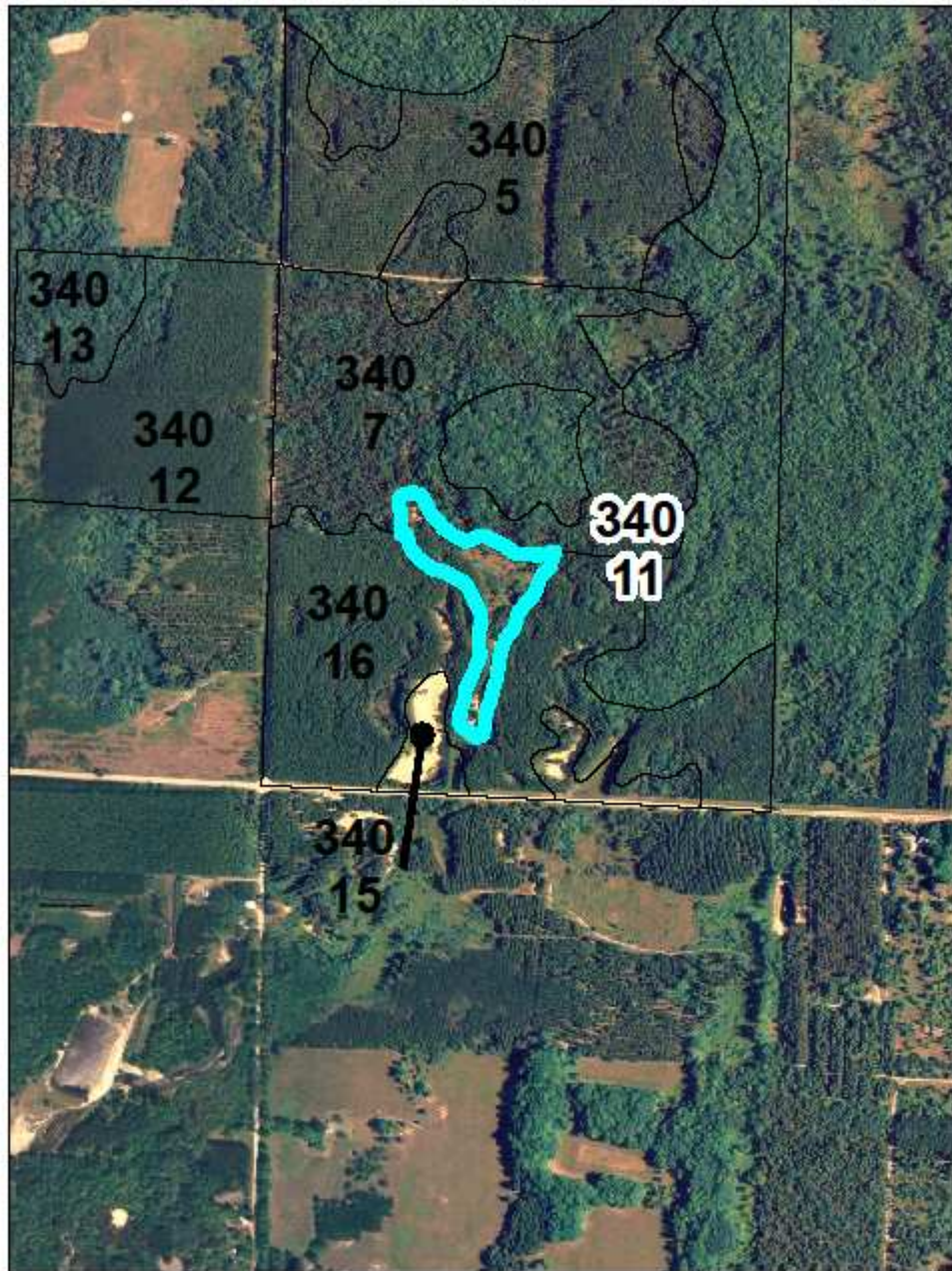
**Mitigation:** Cutting would be prohibited from May 1-August 31 to eliminate the possibility of impacting individual bats in summer roosts.

**Concern:** Protection of bald eagle nesting areas.

**Mitigation:** Prescribed burning would be conducted only when smoke would be transported away from active nesting areas. See district wildlife biologist for current nest area locations and status.



## County Line Fuels Project Treatment Unit Card 51



0 200 400 800 1,200 1,600 Feet



**Treatment Unit Card 51**

**Alternatives:** 2, 3, 4  
**Compartment:** 340  
**Stand:** 11  
**Acreage Treated:** 7

**Treatment:** Opening maintenance  
**District:** Cadillac-Manistee  
**Location:** T20N, R16W, Sec 8; Mason County  
**ELTP:** 22

**Unit Description:** An opening located on LTA 7 in Management Area 4.4.

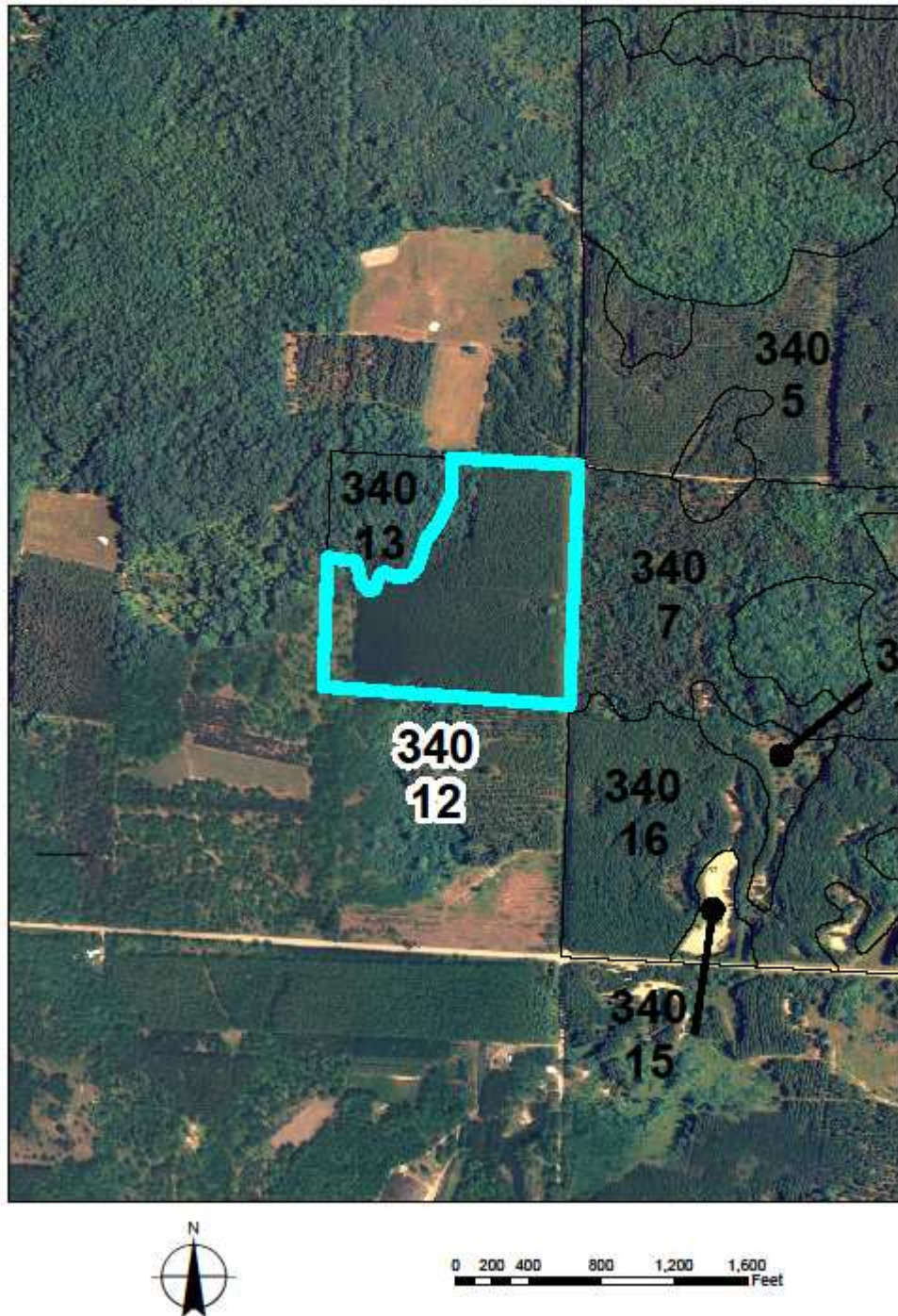
**Wildlife Prescription:** Cut to remove encroaching pine and hardwoods less than 6" diameter breast height where needed to maintain opening and release mast producing shrubs/trees. Girdle larger trees where needed to maintain opening and create snags. Retain or create an average of 9 suitable roost trees per acre within the treated area based upon the priorities in the Indiana Bat Management Guidelines (Forest Plan Standards and Guidelines, pages II 23-25).

**NNIS Prescription:** Inject glyphosate capsules into stems of autumn olive (0.1 ac) with EZ-Ject Lance or stump treatment with 10-20% glyphosate. The alternative is the mechanical removal twice a year for 3-5 years.

**Concern:** Protection of potential Indiana bats present during the breeding season.

**Mitigation:** Standing snags  $\geq 6$  inches dbh would not be cut or removed unless considered a safety hazard.

## County Line Fuels Project Treatment Unit Card 52



## **Treatment Unit Card 52**

**Alternatives:** 2, 3, 4  
**Compartment:** 340  
**Stand:** 12  
**Acreage Treated:** 32

**Treatment:** Thin  
**District:** Cadillac-Manistee  
**Location:** T20N, R16W, Sec 7; Mason County  
**ELTP:** 24

**Unit Description:** A red pine stand with a year of origin of 1950 and a basal area (BA) of 180. It is located on LTA 7 in Management Area 4.4.

**Resource Prescription:** Row thin and thin from below (without spacing consideration) to reduce density by approximately 30%; target 110-130 BA for all species. Remove selected jack pine. Retain or create an average of 9 suitable roost trees per acre within the treated area based upon the priorities in the Indiana Bat Management Guidelines (Forest Plan Standards and Guidelines, pages II 23-25). Retain native, mast producing shrubs where possible.

**NNIS Prescription:** Inject glyphosate capsules into stems of autumn olive (0.1 ac) with EZ-Ject Lance or stump treatment with 10-20% glyphosate. The alternative is the mechanical removal twice a year for 3-5 years.

**Concern:** Protection of aspen inclusion along southern edge of stand.

**Mitigation:** Reserve aspen inclusion from harvest activities.

**Concern:** Protection of potential Indiana bats present during the breeding season.

**Mitigation:** Standing snags  $\geq 6$  inches dbh would not be cut or removed unless considered a safety hazard.

**Concern:** Cultural resources found in stand.

**Mitigation:** Avoid cultural resource, which will be marked with a 20-30 meter flagged boundary prior to project initiation. If any unknown cultural resources are discovered during project activities for the proposed project or there is a change in location of the APE, then a professional Cultural Resources Specialist must be contacted. Project work will not be allowed to resume until the cultural resources have been documented and the sites are preserved from any potential impacts.



## County Line Fuels Project Treatment Unit Card 53



### **Treatment Unit Card 53**

**Alternatives:** 2, 3, 4  
**Compartment:** 340  
**Stand:** 13  
**Acreage Treated:** 9

**Treatment:** Clearcut  
**District:** Cadillac-Manistee  
**Location:** T20N, R16W, Sec 7; Mason County  
**ELTP:** 62

**Unit Description:** A quaking aspen stand with a year of origin of 1948 and a basal area (BA) of 70. It is located on LTA 7 in Management Area 4.4.

**Resource Prescription:** Retain 10-20 trees/acre >9" dbh. Site prep for natural regeneration all trees <5" dbh. Retain or create an average of 9 suitable roost trees per acre within the treated area based upon the priorities in the Indiana Bat Management Guidelines (Forest Plan Standards and Guidelines, pages II 23-25). Retain native, mast producing shrubs where possible.

**Concern:** Protection of potential Indiana bats present during the breeding season and potential roosting habitat.

**Mitigation:** Standing snags  $\geq 6$  inches dbh would not be cut and/or removed unless considered a safety hazard.

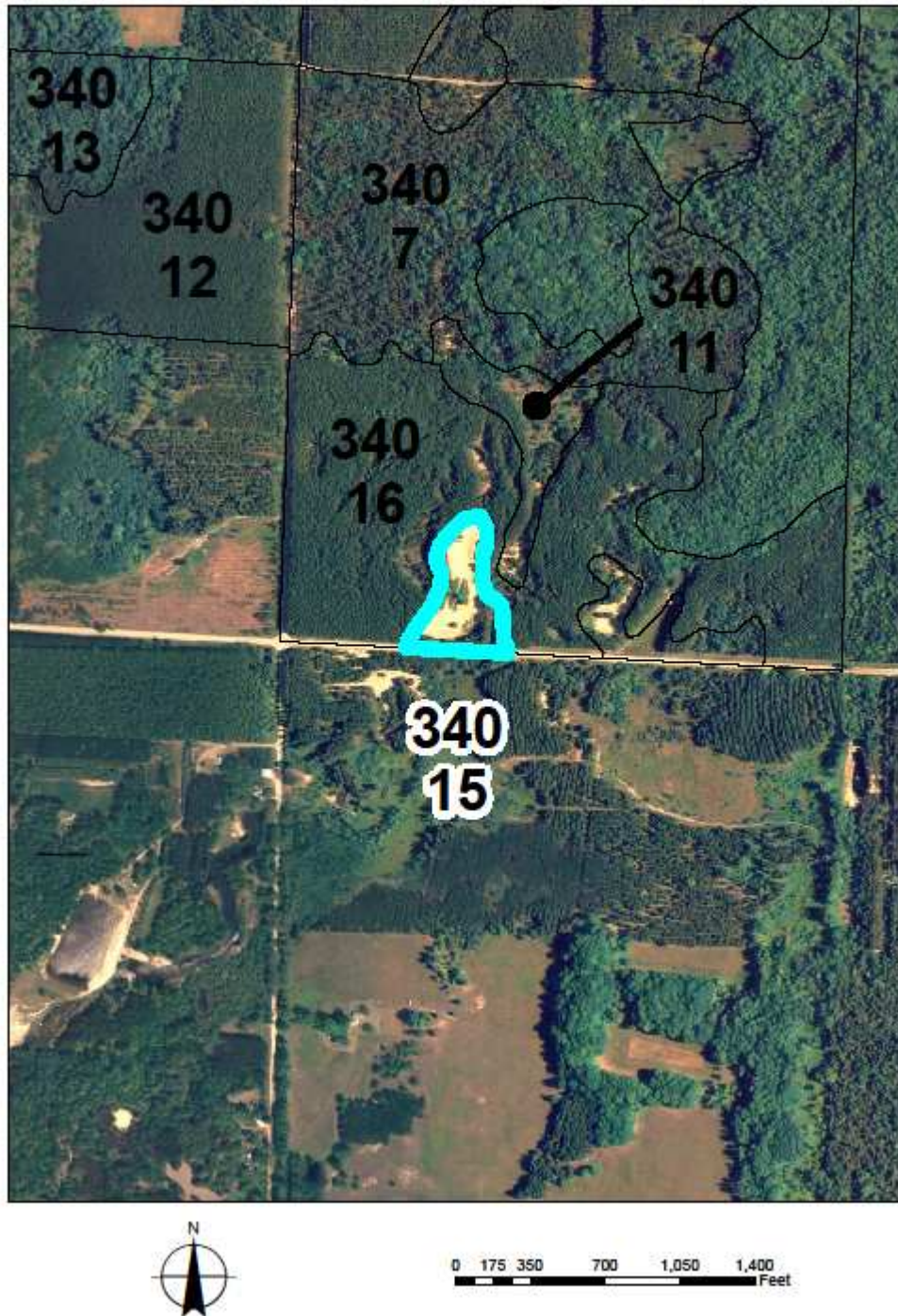
**Mitigation:** Cutting would be prohibited from May 1-August 31 to eliminate the possibility of impacting individual bats in summer roosts.

**Concern:** Seasonal high water table.

**Mitigation:** Harvest between January 1-February 28.



## County Line Fuels Project Treatment Unit Card 54





**Treatment Unit Card 54**

**Alternatives:** 2, 3, 4  
**Compartment:** 340  
**Stand:** 15  
**Acreage Treated:** 4

**Treatment:** Opening maintenance  
**District:** Cadillac-Manistee  
**Location:** T20N, R16W, Sec 8; Mason County  
**ELTP:** 24-62

**Unit Description:** An opening located on LTA 7 in Management Area 4.4.

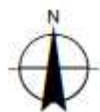
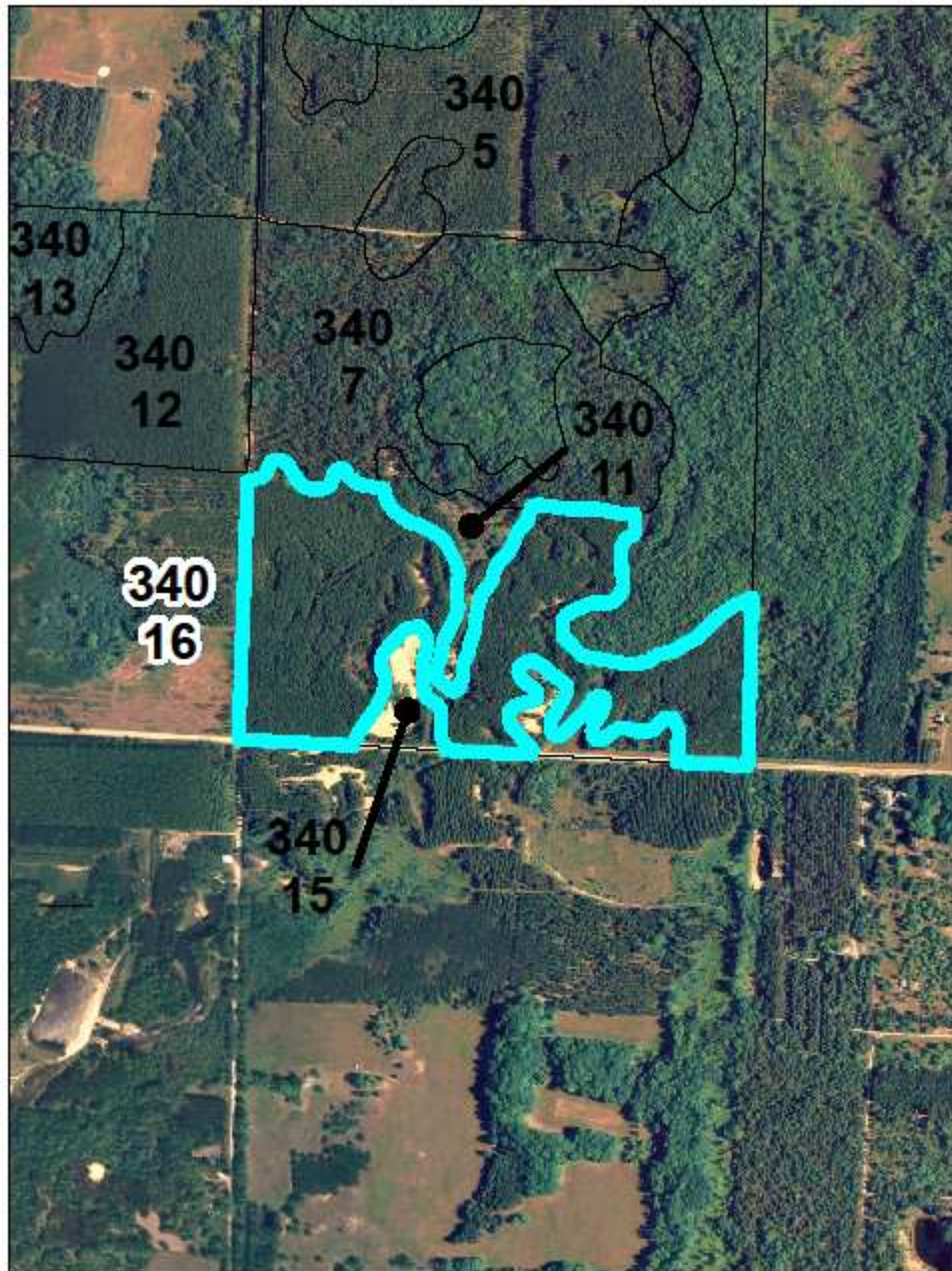
**Wildlife Prescription:** Cut to remove encroaching pine and hardwoods less than 6" diameter breast height where needed to maintain opening and release mast producing shrubs/trees. Girdle larger trees where needed to maintain opening and create snags. Retain or create an average of 9 suitable roost trees per acre within the treated area based upon the priorities in the Indiana Bat Management Guidelines (Forest Plan Standards and Guidelines, pages II 23-25).

**NNIS Prescription:** Inject glyphosate capsules into stems of autumn olive (1 ac) and black locust (0.5 ac) with EZ-Ject Lance or stump treatment with 10-20% glyphosate. The alternative is the mechanical removal twice a year for 3-5 years.

**Concern:** Protection of potential Indiana bats present during the breeding season.

**Mitigation:** Standing snags  $\geq 6$  inches dbh would not be cut or removed unless considered a safety hazard.

## County Line Fuels Project Treatment Unit Card 55



0 205 410 820 1,230 1,640 Feet

## **Treatment Unit Card 55**

**Alternatives:** 2, 3, 4

**Compartment:** 340

**Stand:** 16

**Acreage Treated:** 53

**Treatment:** Thin

**District:** Cadillac-Manistee

**Location:** T20N, R16W, Sec 8; Mason County

**ELTP:** 24

**Unit Description:** A red pine stand with a year of origin of 1967 and a basal area (BA) of 230. It is located on LTA 7 in Management Area 4.4.

**Resource Prescription:** Row thin and thin from below (without spacing consideration) to reduce density by approximately 30%; target 140-160 BA for all species. Remove selected jack pine and black locust. Retain or create an average of 9 suitable roost trees per acre within the treated area based upon the priorities in the Indiana Bat Management Guidelines (Forest Plan Standards and Guidelines, pages II 23-25). Retain native, mast producing shrubs where possible.

**NNIS Prescription:** Inject glyphosate capsules into stems of autumn olive (0.1 ac) and black locust (0.5 ac) with EZ-Ject Lance or stump treatment with 10-20% glyphosate. The alternative is the mechanical removal twice a year for 3-5 years.

**Concern:** Protection of potential Indiana bats present during the breeding season.

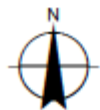
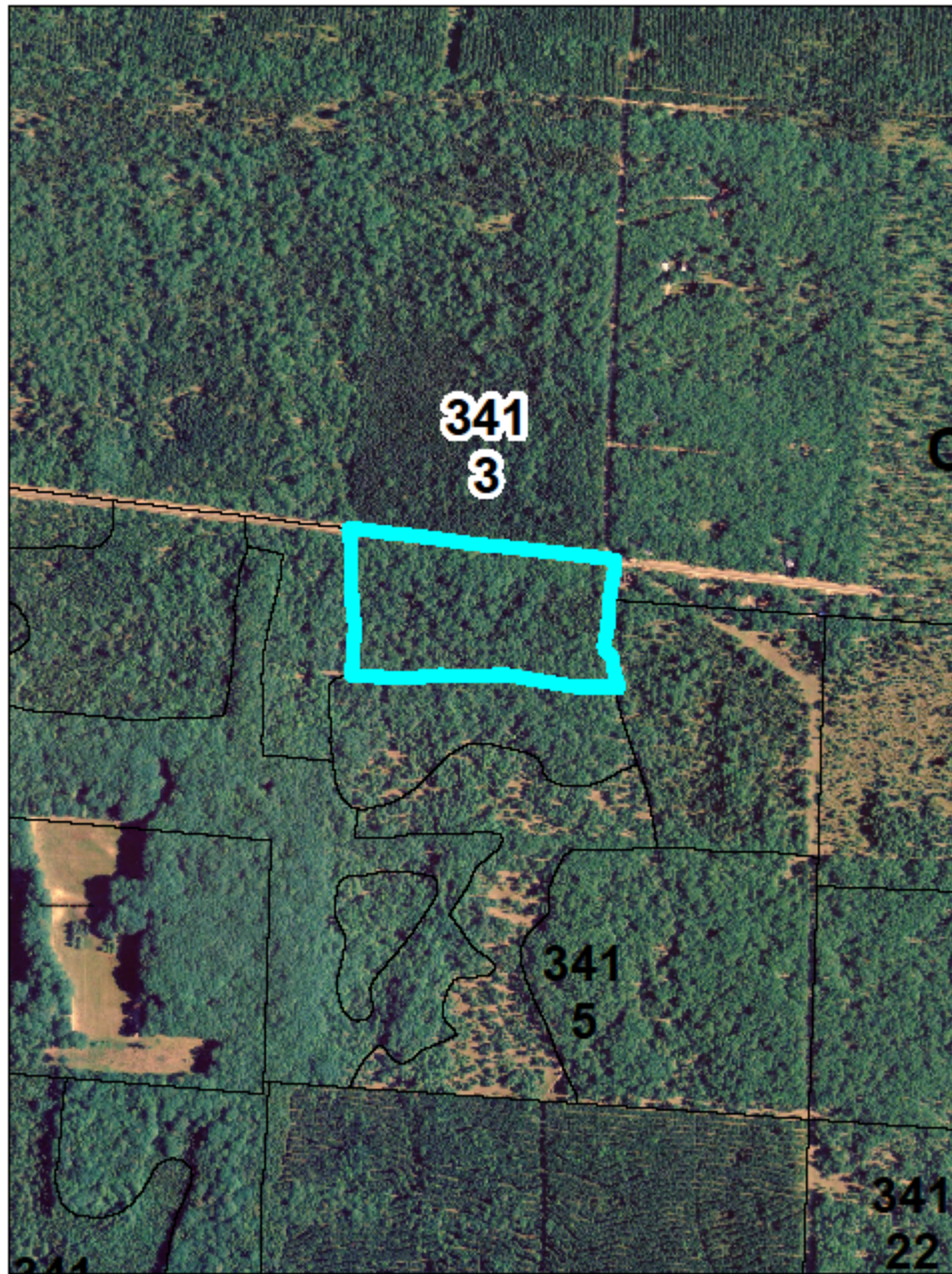
**Mitigation:** Standing snags  $\geq 6$  inches dbh would not be cut or removed unless considered a safety hazard.

**Concern:** Cultural resources found in stand.

**Mitigation:** Avoid cultural resource, which will be marked with a 20-30 meter flagged boundary prior to project initiation. If any unknown cultural resources are discovered during project activities for the proposed project or there is a change in location of the APE, then a professional Cultural Resources Specialist must be contacted. Project work will not be allowed to resume until the cultural resources have been documented and the sites are preserved from any potential impacts.



## County Line Fuels Project Treatment Unit Card 56



0 205 410 820 1,230 1,640 Feet

## **Treatment Unit Card 56**

**Alternatives:** 2

**Compartment:** 341

**Stand:** 3

**Acreage Treated:** 21

**Treatment:** Sanitation; Pile and burn

**District:** Cadillac-Manistee

**Location:** T20N, R16W, Sec 3; Mason County

**ELTP:** 10-20

**Unit Description:** A jack pine stand with a year of origin of 1947 and a basal area (BA) of 70. It is located on LTA 1 in Management Area 4.2.

**Resource Prescription:** Remove decadent/high risk jack pine; retain a minimum of 40 BA of trees >5" dbh. Retain or create an average of 9 suitable roost trees per acre within the treated area based upon the priorities in the Indiana Bat Management Guidelines (Forest Plan Standards and Guidelines, pages II 23-25). Retain native, mast producing shrubs where possible.

**Fuels Prescription:** Machine pile material resulting from sanitation cut throughout the stand. Piles can vary in size and where possible should not be placed under overstory trees.

Burn the piles created during machine piling. This would take place when long range weather forecasts would insure that fire does not spread from the piles to adjacent land, usually late fall and winter.

**NNIS Prescription:** Spot spray bull thistle (0.1 ac) and Canada thistle (0.1 ac) with 2.5% glyphosate. The alternative is to hand pull.

**Concern:** Protection of potential Indiana bats present during the breeding season and potential roosting habitat.

**Mitigation:** Prescribed burning would be prohibited from May 1-August 31 to eliminate the possibility of impacting individual bats in summer roosts. Prescribed burns would be conducted only when smoke would be transported away from the Tippy Management Zone (TMZ) or when the majority of the smoke would disperse before reaching the TMZ to protect bats during spring and fall swarming.

**Mitigation:** Standing snags  $\geq 6$  inches dbh would not be cut and/or removed unless considered a safety hazard.

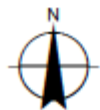
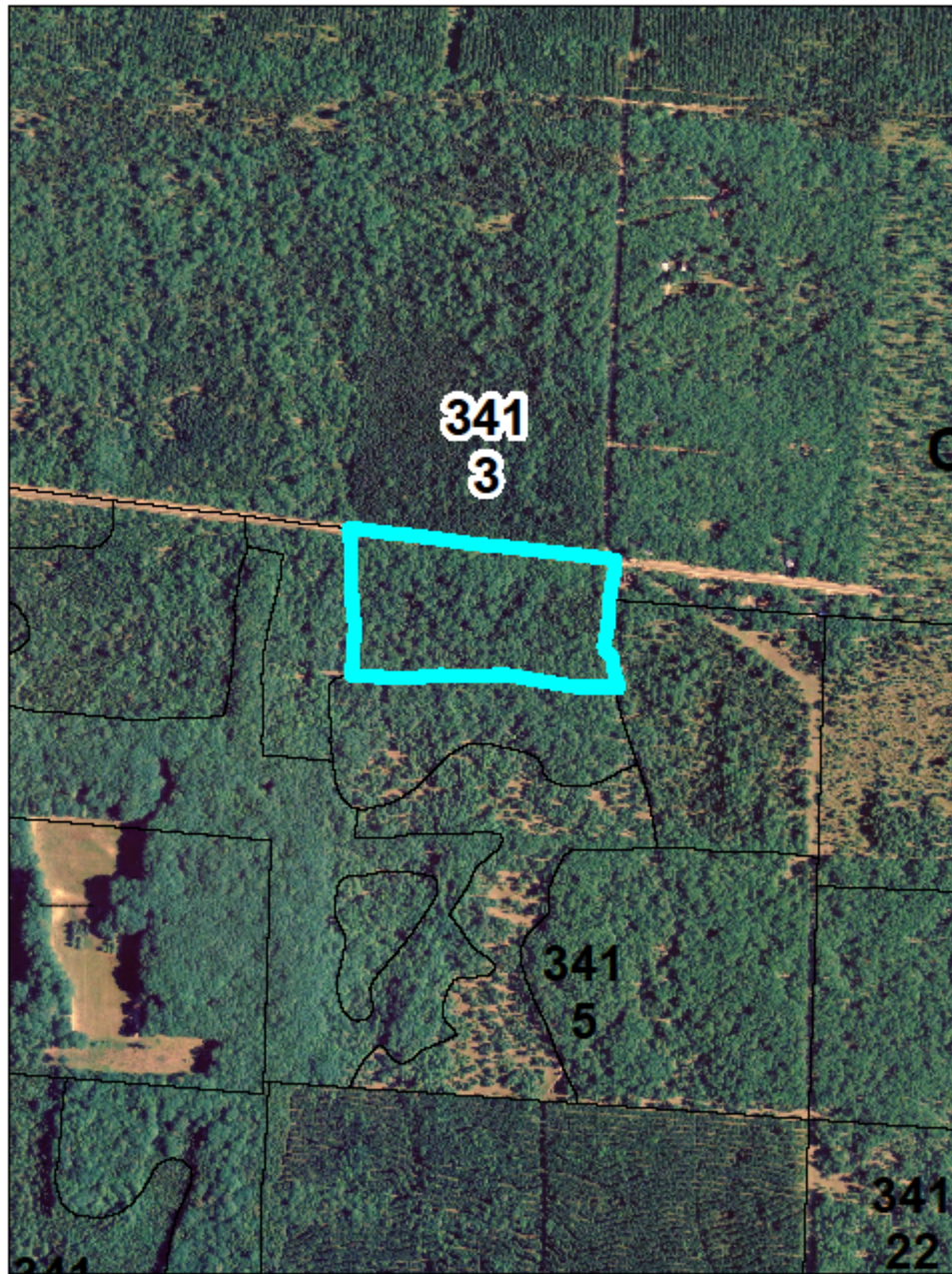
**Mitigation:** Cutting would be prohibited from May 1-August 31 to eliminate the possibility of impacting individual bats in summer roosts.

**Concern:** Protection of bald eagle nesting areas.

**Mitigation:** Prescribed burning would be conducted only when smoke would be transported away from active nesting areas. See district wildlife biologist for current nest area locations and status.



## County Line Fuels Project Treatment Unit Card 56



0 205 410 820 1,230 1,640 Feet



## **Treatment Unit Card 56**

**Alternatives:** 3

**Compartment:** 341

**Stand:** 3

**Acreage Treated:** 21

**Treatment:** Shelterwood; Site prep

**District:** Cadillac-Manistee

**Location:** T20N, R16W, Sec 3; Mason County

**ELTP:** 10-20

**Unit Description:** A jack pine stand with a year of origin of 1947 and a basal area (BA) of 70. It is located on LTA 1 in Management Area 4.2.

**Resource Prescription:** Shelterwood removal cut harvest; remove decadent/high risk jack pine and oak <8" dbh. Site prep for natural regeneration by hand tool felling of all jack pine and oak <5" dbh. Retain a minimum of 30 BA of oak and pine >8" dbh. Retain or create an average of 9 suitable roost trees per acre within the treated area based upon the priorities in the Indiana Bat Management Guidelines (Forest Plan Standards and Guidelines, pages II 23-25). Retain native, mast producing shrubs where possible.

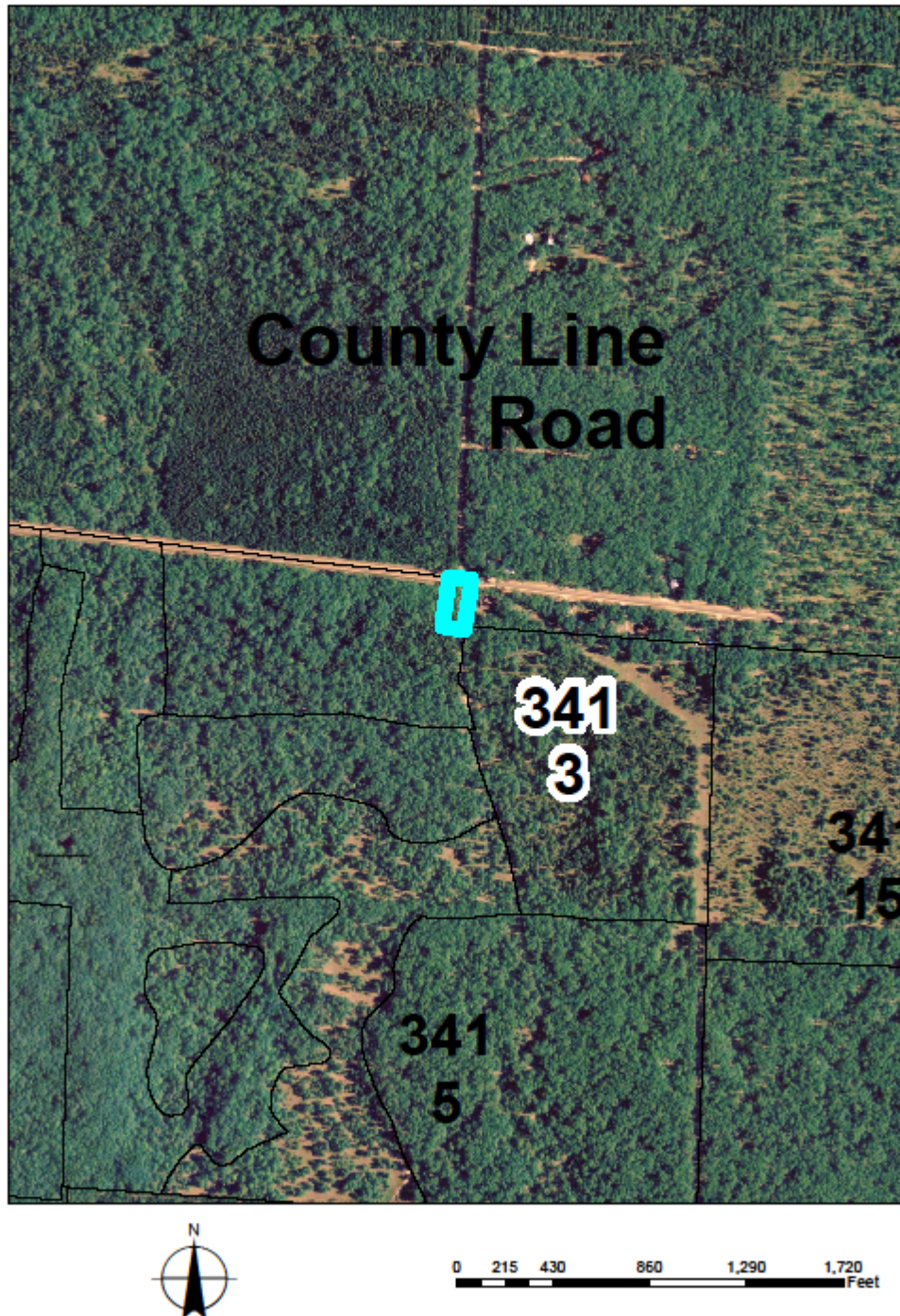
**NNIS Prescription:** Spot spray bull thistle (0.1 ac) and Canada thistle (0.1 ac) with 2.5% glyphosate. The alternative is to hand pull.

**Concern:** Protection of potential Indiana bats present during the breeding season and potential roosting habitat.

**Mitigation:** Standing snags  $\geq 6$  inches dbh would not be cut and/or removed unless considered a safety hazard.

**Mitigation:** Cutting would be prohibited from May 1-August 31 to eliminate the possibility of impacting individual bats in summer roosts.

## County Line Fuels Project Treatment Unit Card 56



## **Treatment Unit Card 56**

**Alternatives:** 4  
**Compartment:** 341  
**Stand:** 3  
**Acreage Treated:** 1

**Treatment:** Fuelbreak; Pile and burn  
**District:** Cadillac-Manistee  
**Location:** T20N, R16W, Sec 3; Mason County  
**ELTP:** 10-20

**Unit Description:** A jack pine stand with a year of origin of 1947 and a basal area (BA) of 70. It is located on LTA 1 in Management Area 4.2.

**Fuels Prescription:** Cut all decadent hardwoods and all conifers within 100' of private property. Break up all fuel concentrations that appear to pose a threat. These fuels would then be piled within the fuelbreak corridor. Piles can vary in size and should not be placed under overstory trees. All healthy hardwood overstory trees and hardwood regeneration would be retained. Burn the piles created during fuelbreak construction. This would take place when long range weather forecasts, usually late fall or winter, insure that fire does not spread from the piles to adjacent land. Retain or create an average of 9 suitable roost trees per acre within the treated area based upon the priorities in the Indiana Bat Management Guidelines (Forest Plan Standards and Guidelines, pages II 23-25). Retain native, mast producing shrubs where possible.

**NNIS Prescription:** Spot spray bull thistle (0.1 ac) and Canada thistle (0.1 ac) with 2.5% glyphosate. The alternative is to hand pull.

**Concern:** Protection of potential Indiana bats present during the breeding season and potential roosting habitat.

**Mitigation:** Prescribed burning would be prohibited from May 1-August 31 to eliminate the possibility of impacting individual bats in summer roosts. Prescribed burns would be conducted only when smoke would be transported away from the Tippy Management Zone (TMZ) or when the majority of the smoke would disperse before reaching the TMZ to protect bats during spring and fall swarming.

**Mitigation:** Standing snags  $\geq 6$  inches dbh would not be cut and/or removed unless considered a safety hazard.

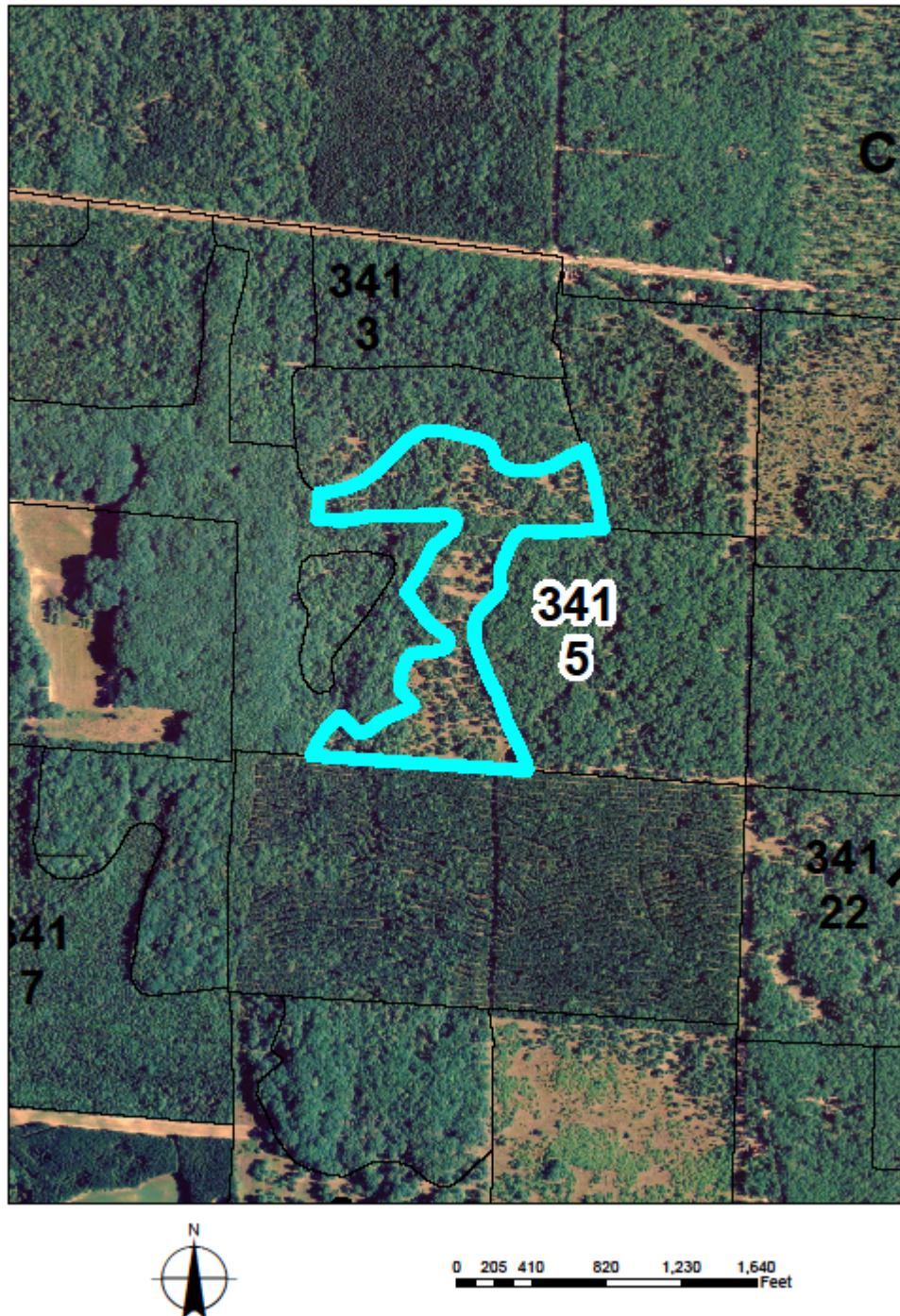
**Mitigation:** Cutting would be prohibited from May 1-August 31 to eliminate the possibility of impacting individual bats in summer roosts.

**Concern:** Protection of bald eagle nesting areas.

**Mitigation:** Prescribed burning would be conducted only when smoke would be transported away from active nesting areas. See district wildlife biologist for current nest area locations and status.



## County Line Fuels Project Treatment Unit Card 57



## **Treatment Unit Card 57**

**Alternatives:** 2, 3, 4  
**Compartment:** 341  
**Stand:** 5  
**Acreage Treated:** 28

**Treatment:** Opening maintenance; Broadcast burn  
**District:** Cadillac-Manistee  
**Location:** T20N, R16W, Sec 3; Mason County  
**ELTP:** 20

**Unit Description:** An opening located on LTA 1 in Management Area 4.2.

**Fuels Prescription:** A broadcast burn would be conducted. The prescribed burn would take place after a burn plan is written and approved for the units to be treated. Details of desired weather conditions, firefighting forces required, safety concerns, and other critical issues would be detailed in the burn plan. The objectives are to maintain the opening for plant diversity, reduce fuel loading, and to maintain a more open condition to allow fire fighters access to fight possible crown fires in the area. The fire intensity needed to achieve the objectives of killing tree saplings, thatch reduction, and shrub and warm season grass/forb regeneration would be generated by flame heights of 1-2'. The controlled burn would be of low intensity and be confined to the ground cover layer. The burn would be short in duration, consuming primarily grasses and litter. The prescribed burn should reduce 1 hour fuels 80% (50-90%), 10 hour fuels 60% (30-80% range), and 100 hour fuels 5% (10-70% range). Exposed mineral soil would occur on no more than 15% of the stand. Manage smoke to minimize impacts to smoke sensitive areas.

A series of maintenance burns may be required to reduce additional fuel buildup; encourage continued growth and sustain plant species dependent on fire; and, discourage regeneration of tree species associated with extreme fire behavior. It is anticipated that up to two additional burns spaced every 3-5 years may be required to achieve these goals.

**Wildlife Prescription:** Cut to remove encroaching pine and hardwoods less than 6" diameter breast height where needed to maintain opening and release mast producing shrubs/trees. Girdle larger trees where needed to maintain opening and create snags. Retain or create an average of 9 suitable roost trees per acre within the treated area based upon the priorities in the Indiana Bat Management Guidelines (Forest Plan Standards and Guidelines, pages II 23-25). Create upland water source. The waterhole would be excavated and lined with plastic, would be approximately 30X30 ft and 4-6 ft deep.

**Concern:** Protection of potential Indiana bats present during the breeding season and potential roosting habitat.

**Mitigation:** Prescribed burning would be prohibited from May 1-August 31 to eliminate the possibility of impacting individual bats in summer roosts. Prescribed burns would be conducted only when smoke would be transported away from the Tippy Management Zone (TMZ) or when the majority of the smoke would disperse before reaching the TMZ to protect bats during spring and fall swarming.

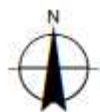
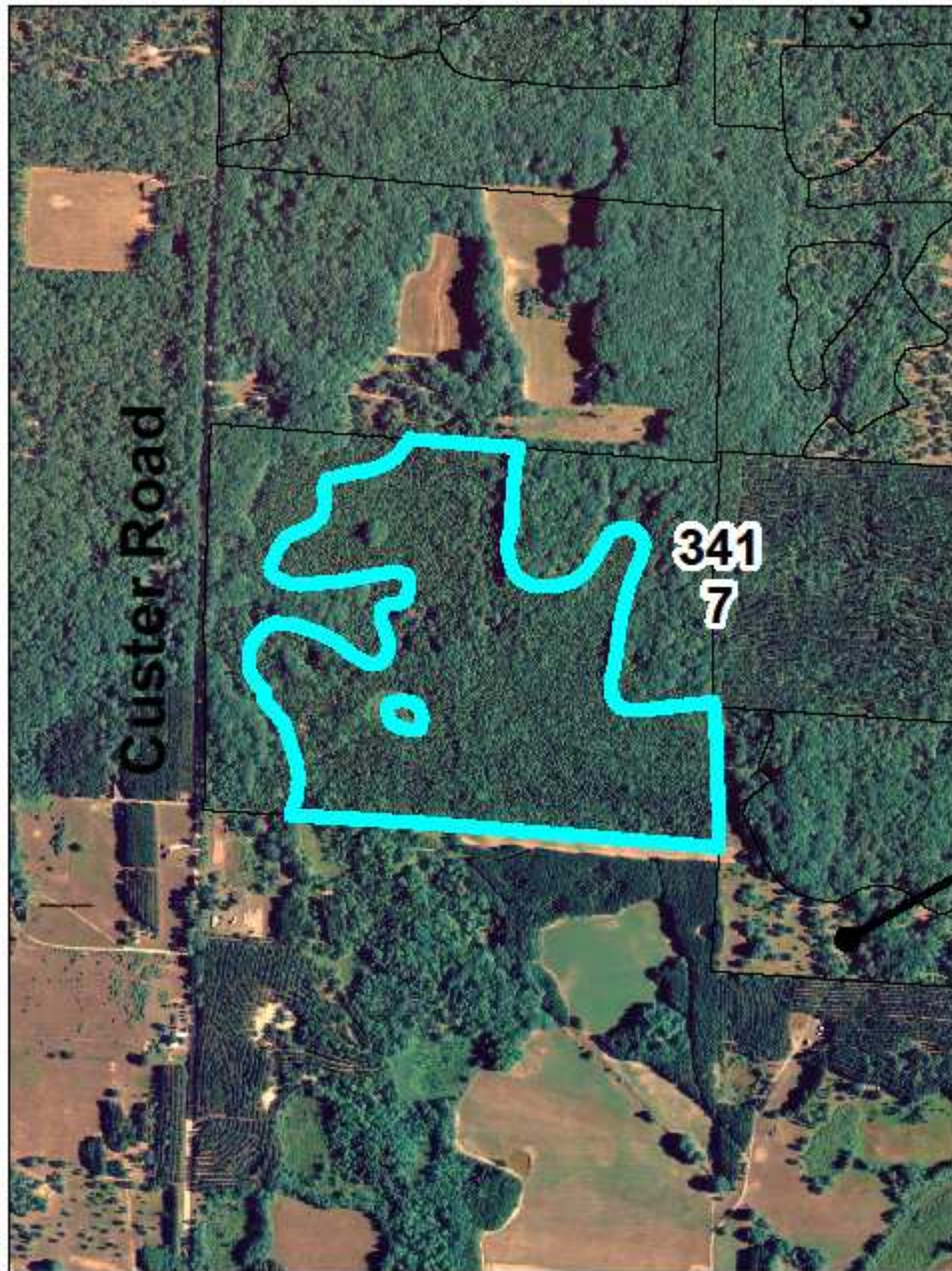
**Mitigation:** Standing snags  $\geq 6$  inches dbh would not be cut and/or removed unless considered a safety hazard.

**Concern:** Protection of bald eagle nesting areas.

**Mitigation:** Prescribed burning would be conducted only when smoke would be transported away from active nesting areas. See district wildlife biologist for current nest area locations and status.



## County Line Fuels Project Treatment Unit Card 58



0 215 430 860 1,290 1,720 Feet